THE CULTIVATOR.

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Experiments on Indian Corn.

ISAAC BACKUS of Canterbury, Ct., communicates to the *Homestead*, the results of some experiments with artificial manures on Indian corn. The soil on which the experiments were made was a gravelly loam sward, and plowed about the 20th of May, 1854, "in strips one rod wide, and planted, four rows to each breadth, with medium sized yellow corn." The manures used were superphosphate of lime, guano, (we presume Peruvian but it is not stated,) bones dissolved in sulphuric acid, stable manure (taken from a heap outside the barn, made from good hay fed to neat cattle, nearly free from litter, spread on the land before plowing,) leached ashes, and hog manure, (made by corn fed hogs in a covered pen, with a light plank floor, and soils from the fields used as an absorbent.) These manures were applied in 1854, and the yield of corn on the several plots ascertained. In 1855 the plots were again planted to corn, *all of them being left without manure of any kind*. The following table exhibits the results: (*For table, see next page.*)

The plot without any manure the first year gives 28 bushels of shelled corn per acre, the second year only 16 bushels. This is a great falling off, arising Mr. B. says, "from the exhaustion of the soil, and partly from the unfavorable season. Such a short, cold summer as the last (1855) does not make good ears of corn."

500 lbs. of superphosphate of lime give 18 bushels per acre more than the plot without manure, and the next year 12¾ bushels. This shows that the benefit derived from superphosphate on corn is two-thirds as great the second year as the first.

690 lbs. of guano give 22½ bushels increase the first year, and the second year 13¼ bushels. This shows, too, that guano is much more lasting in its action on corn than has generally been supposed.

16 loads of stable manure give 7½ bushels increase per acre the first year and 9¼ bushels the second year. 32 loads give 14¾ bushels increase the first year and 20¾ bushels the second. In both these cases the *increase is considerably greater the second than the first year.*

16 loads of stable manure and 200 bushels of leached ashes, give 16 bushels increase the first year and 24 bushels the second year. This uniformly greater increase from stable manure, the second year after its application, is somewhat remarkable, though perhaps it is in part attributable to the dry season of 1854.

By comparing Plot 7 with Plot 9, it will be seen that 200 bushels of leached ashes increase the yield 8½ bushels per acre the first year and 14¾ bushels the second year.

The hog manure as compared with the stable manure, gives a higher increase the first year and an increase nearly identical the second year. It is worthy of observation that the hog manure (mixed with soil and probably thoroughly decomposed,) gave considerably more increase the first than the second year, a result the reverse of that obtained with the stable manure.

The cost of producing an extra bushel of corn by the aid of these manures is shown in the last column of the table. Superphosphate of lime heads the list; the cost of producing a bushel of corn with this manure being 40 cents; with guano and superphosphate mixed, 46 cents; with guano alone 53 cents; with hog manure 65 cents; with stable manure 90 and 95 cents. The 200 bushels of leached ashes cost $12, and gave an increase of 23¼ bushels; thus making the cost of producing a bushel of corn with leached ashes about 50 cents. It must be remembered, however, that the ashes and the stable manure gave a greater yield the second than the first year, and we are warranted in presuming that should the field be planted in corn the next year, these manures will give considerably more increase than the guano and superphosphate of lime; and it is not improbable that in the end the stable manure, instead of being the most expensive, will prove to be the cheapest fertilizer.

For scientific as well as for practical reasons, we have long desired to learn the effects of a good superphosphate of lime on Indian corn. With its effect on wheat we are well acquainted. We know that although in instances where land has been so impoverished of available phosphoric acid that it willn ot produce five bushels of wheat per acre, an application of superphosphate of lime may increase the crop to 10 or 15 bushels per acre, and consequently be quite profitable, yet superphosphate of lime cannot be considered a good manure for wheat, for there are other and better manures that can be used with more profit, such as Peruvian guano which furnishes sufficient phosphoric acid and at the same time a large quantity

No. of plots.	Quantity and kind of Fertilizers used per acre, in 1854.	Yield per acre in 1854.	Yield per acre in 1855.	Increase of yield over the unmanured plot in 1854.	Increase of yield over the unmanured plot in 1855.	Aggregate increase in 1854-5.	Cost of manure.	Cost of producing an extra bushel of corn over the unmanured plot by the several manures.
1	No manure	28	16	—	—	—	—	—
2	500 lbs. of superphosphate of lime,	46	28½	18	12½	30½	$12 50	$0.40
3	690 lbs. of guano,	50½	29½	22½	13½	35¾	19.00	0.53
4	300 lbs. of superphosphate and 640 lbs. guano,	58	38¾	30	22¾	52¾	25.10	0.47
5	320 lbs. guano and 640 lbs. of dissolved bone,	51	32	23	16	39	18.40	0.47
6	1040 lbs. guano and 400 lbs. of superphosphate,	74¾	52	46¾	36	82¾	38.60	0.46
7	16 loads of stable manure,	35½	25½	7½	9½	16¾	16.00	0.95
8	32 do do	42¾	36¾	14¾	20½	35½	32.00	0.90
9	16 do and 200 bushels of leached ashes,	44	40¾	16	24	40	28.00	0.70
10	16 do and 640 lbs. superphosphate	49½	38½	21½	22½	44	32.00	0.72
11	32 do and 320 lbs. guano and 320 lbs. superphosphate,	60	43½	32	27½	59½	48.00	0.81
12	Hog manure from 108 bushels of corn.	43	25¾	15	9¾	24¾	16.20	0.65

of ammonia, a substance of which no soil, impoverished of phosphoric acid, can contain sufficient for the production of good wheat crops, say 25 to 35 bushels per acre. But we do not know that such is the case with Indian corn, and hence the necessity of careful and judiciously planned experiments with pure superphosphate of lime, sulphate of ammonia, potash, soda, &c. Experiments with manures containing *all* the elements of plants, can never throw much light on the question so important to a rational system of manuring and rotation, "what particular substance or class of substances is required in the greatest proportion for this or that particular crop or class of crops." Neither will analyses of the crops answer this question. The experiments of LAWES, BOUSSINGAULT and some others, in England and the Continent of Europe, enable us to answer to some extent this question as regards wheat, turnips, clover, beans, peas, tares, and barley; but of the requirements of Indian corn we are lamentably ignorant. The first judicious experiment in this direction has yet to be made on the great American cereal. We have been at the trouble to arrange in tabular form the results of Mr. BACKUS' experiments, but after carefully pondering over this table, we are unable to come to any satisfactory conclusion.

De Burg's superphosphate of lime, according to an analysis made by Dr. STEWART, Chemist to the Md. State Ag. Society, and published by the manufacturer in his circular, is composed as follows:

Bone Phosphate of Lime,	56.50
Super-Phosphate of Lime,	3.18
Sulphate of Lime,	2.25
Ammonia, Sulphate, Urate, and Phosphate,	16.11
Fixed Alkaline Salts, Carbonate of Lime, Organic matter, Silica, Alumina, &c.,	21.96
	100.

De Burg's Superphosphate, according to the trials made on the State Farm of Massachusetts, is a somewhat better article than Mapes', the same quantity in each case giving 42¾ bushels of corn with Mapes', and 50½ with De Burg's. Mr. BACKUS used both articles, "but found," he says, "so little difference in the effect, that I have not encumbered the statement with the amount of each."

Assuming, then, that the guano used in the above experiments was Peruvian, and a good article; and that the superphosphate was De Burg's, and corresponded in composition to that analysed by Dr. STEWART, we think that the general results of the experiments indicate that the increase obtained is to be attributed, in great measure, to the available phosphate of lime of the manures used.

The 32 loads of stable manure used on Plot 8, contained an immense amount of carbonaceous matter, silica, potash, soda, lime, magnesia, sulphuric acid, and phosphate of lime; the increase obtained from it could not be due to the carbon, silica, potash, soda, &c., for the 690 lbs. of guano on Plot 3, which gave almost an identical increase, taking the two years together, contained no carbon, silica and sulphuric acid, and but a small quantity of potash. We are led by a comparison of these two plots, then, to the conclusion that the increase is due either to the ammonia, or the phosphate of lime, or both. But the superphosphate of lime on Plot 2, gives as great an increase in proportion to the quantity used, as the guano, while the guano contains, probably, at least eight times as much ammonia as the superphosphate; we may conclude, therefore, that the increase is not due in any great dgree, to the ammonia of the various manures used. But as an increase *is* obtained, and as it is not due to any of the ingredients of the manure except phosphate of lime, we are compelled to ascribe it to this substance.

It may be said that if the increase is due to phosphate of lime, the superphosphate of lime ought to have had a much greater effect as compared with guano. Not at all. The 500 lbs. of superphosphate on Plot 2, contained, according to the analysis of Dr. STEWART, about 16 lbs. of *soluble* phosphate of lime.* This of course would be available the first year. Little, if any, of the 277 lbs. of insoluble phosphate of lime (animal

* We are much surprised that such an analysis should be published, for if it is correct, De Burg's superphosphate is a very poor article—far inferior to what we supposed it to be, and in fact, far inferior to what the ingredients used would make if sufficient sulphuric acid was used, and properly mixed with the animal charcoal. A superphosphate is valuable in proportion to the superphosphate or *soluble* phosphate of lime which it contains. In England a superphosphate is sold at retail for $30 per ton of 2000 lbs., warranted to contain 16 per cent. of *soluble* phosphate of lime. According to the analysis of Dr. STEWART, De Burg's superphosphate—said to be the best in the country—contains only a little over 3 per cent. of superphosphate of lime. If the increase produced in Mr. BACKUS' experiments is due to the available phosphate of lime of the manure, a *good* superphosphate at a reasonable price would be a very cheap fertilizer for corn.

charcoal,) supplied in the superphosphate, could be taken up by the plant the first year, but a portion of it would become soluble for the next crop. The 16 lbs. of soluble phosphate of lime available the first year, would be about the quantity the 18 bushels of increase of corn obtained the first year contained, while we may reasonably conclude that of the 277 lbs. of insoluble phosphate of lime applied, enough would become soluble in the course of the next year, for the 12¾ bushels increase obtained.

The 690 lbs. of guano would probably contain 170 lbs. of phosphate of lime, and although we are unable to form any correct estimate of the proportion of this, that would become available in the course of one and two years, yet we may safely conclude that enough would become soluble to supply all that the 35¾ bushels of corn, (increase from guano in two years,) contained.

All the manures used as far as we can judge, contained as much phosphate of lime as the increase of corn obtained from them. Of no other ingredients of these manures can this be said.

The conclusion to which this train of reasoning leads, is one of vast importance to the science and practice of agriculture; as we might show did our space permit. But we fear to trust the experiments. They may have been conducted with great care, they may have been on a sufficiently large scale, and they may not, for the extent of the trial plots is not given. But admitting that the experiments are everything that could be desired in this respect, they are from the character of the manures used, incapable of demonstrating anything in regard to the manurial requirements of the corn crop; and however much we may argue ourselves into the belief, or in our own case the *hope*, that soluble phosphate of lime is a valuable manure for corn, while ammonia is not so specially needed, yet we cannot be certain that such is the case, till we have more direct evidence on the point. How long must we wait for it?

Management of a Milk-Farm.

I have some questions to ask about my own particular branch of farming. I make my staple milk, which goes to the city of Philadelphia by railroad, daily, to the hands of a man who pays me 3 cents a quart for the summer six months, and 4 cents for the winter six months. The freight *I* pay, amounting to a trifle over one-fourth of a cent per quart. What do you think of *that* for a business—the understanding being that I furnish in the winter two-thirds as much daily as in the summer? How must I make milk in the winter? And would it be likely to pay to break up sod in the summer, say immediately after harvest, and sow oats and rye, mixed, for late fall and early spring pasture? Which is better, to sow guano for a top dressing, on old natural grass fields, and save labor, or invert the sod and apply the dressing to a new sowing of clover and timothy, and all the weeds that will spring up, released from the confinement of the old turf? I speak as concerns dollars and cents. May-be you can help me to the price of a new fodder cutter, by telling me the best way. Do, and I will be as ready to oblige you some time, as you are to oblige your friend. C. P. *Paoli, Chester Co., Pa., 12th Month 12th*, 1855.

We should be glad if some of our correspondents will give their experience on the above questions. There can be no doubt that milk can be sold at the rate you mention and leave considerable profit to the producer—more, we think, as a general rule, than if butter or cheese was made.

To make milk in the winter is not difficult if you have cows which come in this fall or late in the spring, or, in fact, with any good cows that are not too far advanced in calf. It is possible, indeed, by high feeding to enable a cow heavy in calf, to produce considerable milk, but it is injurious. We have several instances in mind where cows were milked to within a few weeks of calving, and in every one of them the cows did not do well the next summer. The principal London milkmen purchase new milk cows, and then milk them as long as they give a good quantity of milk—one, two, or three, or four years—never letting them see the bull. Grains, cabbage, bran, &c., are the principal foods, and with this feed, and the mode of treatment we have mentioned, as much milk is obtained in the winter as in the summer. Of course this system is not applicable on a farm.

Having the right kind of cows, in the right condition, the best and *cheapest* feed to produce milk in winter, would be, perhaps, cut corn-stalks, per head per diem 15 lbs; shorts, 5 lbs.; oilcake, 2 lbs.; cabbage, mangold wurtzel, beets, or carrots, 30 lbs.; with what hay or straw the cow will eat in addition. If the stalks could be steamed conveniently, and the shorts and oilcake mixed with them while hot, it would be advantageous, and, we believe, economical. Hay is the best standard food for milch cows in winter, but in many places it is so high, that it cannot be profitably fed to them.

Of oats and rye for late fall and early spring pasture, we should be glad to hear from our experienced correspondents. Formerly, in England, rye was sown in the fall to a considerable extent for early spring feed for ewes and lambs—and it produced much good milk—but the practice has been pretty much given up, the rye being found to impoverish the soil to the great detriment of the following barley crop—and this, it must be remembered, even when the rye is all consumed on the land by sheep.

If your land is natural to grass, we should prefer to top-dress the meadows than to break up and re-seed. If you plow them up, do not seed them down again on the sod the first year, but take two or three hoe-crops in the interval. In this way, you will not be troubled with the "weeds" you speak of.

You will find a good feed cutter at the store of Paschall Morris & Co., corner of Seventh and Market Sts., Philadelphia.

Is Farming Profitable?

Messrs. Editors—Is farming, when rightly conducted, a *profitable* business? Do you suppose that a man with 320 acres of good rich land—say for instance in Iowa (which is probably the best farming country,) could clear over and above all of his expenses, on an average, $1000 or $1500 per year?

The above questions may appear rather singular and strange, but I want to find out about the general profits, as I think of going to farming. At present I am engaged in city as clerk, but within the last year or so have had a strong desire to go to farming. J. I. J. *Cincinnati.*

We have already, in former numbers, treated pretty fully of the subject of city clerks engaging in farming, and think it a decided change for the better. But after they have bought *improved* farms, well furnished with buildings, tools, animals, and efficient laborers, they must not be disappointed if they sink money for two or three years, until they become masters of all the practical details of the art.

Some men will grow rich where others utterly fail—it is especially so with city trade, where it has been said that on the long run, there are only five young men in a hundred that are decidedly successful—the

ninety-five barely living, or more frequently entirely failing. Farming, however, has one great advantage, very few utterly fail—most gain very slowly or not at all; a small portion, as in the city, grow rich. We know a farmer of western New-York, about 40 years old, who began with little or nothing, and has now made by farming about fifty thousand dollars, and clears annually some five thousand a year from his seven-hundred acre farm.

We cannot tell the amount of money which may be made from an Iowa farm—so much depending on the cost of labor, distance to market, prices, &c. No doubt an *experienced and skillful manager* would accumulate money rapidly on the fertile western lands, where others could do nothing. Every thing depends on THE MAN, and much less on the business, provided it allows him a fair sweep for his energies.

Raising Broom Corn.

MESSRS. EDITORS—In the December number of *The Cultivator*, I notice a call from a correspondent in Ohio, for information relative to the raising of Broom Corn; also in your November issue, another correspondent wishes to know "how seed is usually cleaned from Broom Corn." My experience in this matter has not been very extensive,—but as I have raised three or four small crops of Broom Corn, (considerable quantities of which are raised in the valley of the Connecticut,) perhaps I can tell your correspondents "how to do it."

In the first place, the land on which it is proposed to plant Broom Corn, should be a rich and warm soil, such as will produce a good crop of Indian Corn; and should be prepared in the same manner, by plowing, harrowing, manuring, &c., as for the last named crop. Broom Corn should be planted as early as the soil and the weather will allow—say from the 1st to the 18th May—in rows from 3 to 3½ feet apart, and in hills from 1½ to 2 feet distant in the rows. Put about a dozen seeds in a hill, and when hoed the second time thin out so as not to leave more than about *eight* plants in a hill. As the first growth of the plants is quite slow, it is advisable to put some concentrated fertilizer (as guano, poudrette, superphosphate, or ashes) in the hill, to give the corn so early a start that the weeds shall not get too far ahead of it. The hoeing and summer culture of the crop is the same as Indian Corn.

When the heads are fully grown, and the seed nearly ripe, it is usual to "table" it,—which operation is is performed by taking hold of the stalks some four or five feet from the ground, and breaking them down so that the upper section, with the heads, shall lie in a horizontal position. In doing this, begin sav with the outer row on the right side of the field, and turn the heads *in*, or to the left hand, thus going the whole length of the row; then turn about and go the other way, turning the next row also to the left, so that the heads will lie on the first. In going thus through the whole piece, each pair of rows will be tabled together, with a convenient alley or path between, in which to pass up and down at the time of harvesting. When the seed is fully ripe, (or if a severe frost is apprehended, it should be done before,) the heads or brush are to be severed from the stalks, and laid away to dry. This is done with a sharp knife, cutting off just *above* the upper joint. The brush is then carried to the shed or barn, and spread in thin layers on poles or rails, so that the air may have free circulation through it, and left to dry. Care should be taken to spread it as soon as possible after cutting, and to have it in thin layers, as it is very liable to *heat*. A small load got in just at sunset, and left on the wagon till the next morning, has been known to become so much heated as to injure it considerably. Having lain on the poles until thoroughly dry, the brush may be taken down, and the leaves stripped off, which is very easily done, if care has been taken not to cut below the upper joint. It is now ready for

CLEANING OFF THE SEED.—There are various machines for this purpose. One that I have lately been in the habit of using is very simple in construction, and performs the work so satisfactorily, that I will attempt a description. It consists of a wheel about five feet in diameter, made of two thicknesses of two inch plank, and hung in a frame precisely like a grindstone. This wheel is connected by a band with a cylinder one foot in diameter, and 14 to 16 inches in length, lying in another frame about seven feet from the first. An iron rod runs through the cylinder, projecting at one end some 12 or 14 inches, and on this end is a small wheel from four to six inches in diameter, over which the band passes. On the outer surface of the cylinder are the *teeth*, which may be made of sharp pointed spikes, with something of the shape of a thick narrow jack-knife blade, about ten inches in length, placed in rows four inches apart around the diameter, and the same distance the other way, not in squares, but diagonally, like the men on a checker-board. To use this machine to advantage, two men and a boy, or one man and two boys, are needed,—one to turn the crank of the driving wheel, and to pick up and hand the brush, and one to hold it on the cylinder. The crank, being set in motion, the operator stands behind the cylinder, and taking as much brush as he can grasp firmly in his hand, lays the tips on the cylinder, the teeth of which clean off the seed as fast as the boy can pass the brush from the heap along side. With this machine (which any joiner can make, and which I should think can not cost more than five dollars) the seed may be cleaned from five or six hundred pounds of brush in a day.

Although I have made this article longer than I intended, allow me to add, that I consider Broom Corn one of the most profitable crops that a farmer can raise. An acre of good land, properly managed, will produce, in a favorable season, from five to eight hundred pounds of brush, and from fifty to eighty bushels of seed. The seed is said to be worth as much as oats for provender, when fed separately or ground with Indian Corn; and five hundred pounds of good brush will make four hundred heavy brooms—such as will bring at the stores from $2.50 to 2.75 per dozen. Broom makers in this vicinity, will furnish handles, wire, &c., and manufacture brooms for from $5 to $6 per hundred,—or they will take the brush and "make it up at halves." Any farmer can calculate the profits. WM. STORER. *West Hartford, Ct., Dec.* 17,1855.

Ohio Apples.

MESSRS. EDITORS—I have taken the liberty of sending you by express, five or six specimens of our southern Ohio apples, of which I would be pleased to have your opinion, although I fear some of the varieties are past their prime. The Golden Russet and Belleflower are riper than they usually are at this time, attributable I suppose to the wetness of the season. T. V. PETICOLAS. *Mount Carmel, Clermont Co., Ohio.*

The apples were received in good condition. The varieties sent are Yellow Belleflower, Tulpehocken, Lady apple, White Pippin, Yellow Newtown Pippin, and Broadwell. They appear to be all true to name, except it be the Golden Russet, which if correct is so modified by a difference of locality, that we cannot decidedly pronounce on a specimen or two. The Broadwell, Lady apple, and Yellow Belleflower, are about twice the size of those varieties as grown in New-York, as we have heretofore observed in specimens from

southern Ohio. The Tulpehocken, Fallawater, or Fallenwalder, as it is variously called, is not much larger than well grown specimens here. The same observation will apply to the White Pippin, a large and fair apple, of only medium quality, formerly supposed to be the Canada Reinette, but evidently quite a different fruit. The Broadwell is a fine flavored and very valuable winter sweet apple.

Preservation of Onions through Winter.

EDITORS OF COUNTRY GENTLEMAN.—The note of Mr. GOODRICH in your paper Vol. VI, No. 22, just come to hand, in relation to the preservation of onions during the winter, brings to mind inquiries that have repeatedly been made, and which I have several times answered.

The best cultivators in this town preserve their onions in this manner:—In the first place they take care to have them well ripened and dried, before they are gathered. This is done by pulling and throwing eight or ten rows together, and allowing them to lay in the field exposed to the sun, until the tops are completely dried and withered; the juices in the meantime being settled into the bulb—which is found to be somewhat enlarged after they are pulled. They are then collected together and taken to the barn or store-house, where they are thrown in, in masses three or four feet deep. No further care is taken of them until the cold weather approaches—then some straw or stalks are thrown on to the top of the pile, and care is taken to exclude the air from abroad. In this way hundreds of bushels are preserved without being frozen, or any marks of decay. In fact, it is not thought to be worth two cents a bushel to guarantee their perfect preservation until the month of April. Without doubt Mr. G.'s mode of preservation will be effectual; but the mode above described, where a person has several hundred bushels to look after, will be attended with much less labor; and considering the reputation of the onion growers hereabouts, is worthy to be regarded. J. W. P. *South Danvers, Mass. Nov.* 30, 1855.

The Vinegar Plant.

For some time past, the vinegar plant has been used abroad as a substitute for cider vinegar, to advantage. Frequent applications have been made to us to know what it is, and whether introduced here. We cannot discover that it has been. It is exhibited in a living state in the Kew Garden museum, and is called *Mother of Vinegar*. It floats upon a liquid mixture of sugar and water, and is a minute fungus, allied to the *mucors* or *moulds*, Pencillium glaucum, of which the mycelium, or spawn, forms a tough leathery web. A bit of this thrown into the above liquid rapidly increases, induces acetous fermentation, and changes the sugar and water into good vinegar. The yeast plant, or "mother of yeast,"—a substance not so easily preserved—is also considered a Pencillium, and to its action is due the formation of yeast.

It is a well-known fact, that much of the vinegar which is sold in the shops, is either malt vinegar reduced with water, and strengthened with sulphuric acid, or acetic acid, also diluted, neither of which is very acceptable or wholesome. Under these circumstances, it will be a comfort to know that one can make his own vinegar as well as yeast, and know what is in it. Take one gallon of water, half a pound of sugar, half a pound of molasses, and boil them together for twenty minutes; when cool, add a quarter of an ounce of German yeast; put the whole into a jar, and lay the vinegar plant on the surface of the liquor. Cover the jar with paper, keeping it in a warm place, and it will produce very good and wholesome vinegar in about six weeks.

The "Vinegar Plant," to our knowledge, is used for the purpose above mentioned, in this city, in some English families, by some of whom it has doubtless been introduced into this country. The vinegar though not so sour as the best cider vinegar, is exceedingly pleasant, and unquestionably less deleterious to the human system, than that often sold. If we mistake not it takes a month only to form the vinegar fit for use.

Small Lawn Trees.

"What are the best trees for a yard or lawn of one acre—such as will not grow too large for such a place? And how planted?" *N. R.*

Taking it for granted that the planting is to *surround* the dwelling, (and not to be, as too often, placed only towards the road, leaving all other sides bleak and bare,) a leading object in our windy climate, is to shelter the grounds and house from the cold of winter. Our deciduous trees do not hold their foliage half the year, and for this reason, *evergreens* should enter largely into every planting of this kind. These should be planted densely on the sides towards the prevailing cold winds, and placed towards the boundaries, in irregular and natural belts or masses. The most rapidly growing, and one of the most beautiful, is the Norway Fir; the white pine, on favorable soils, will grow about as fast. As the latter grows to a large tree, it should be placed on the most distant points, and allowed as much room as may be practicable, that it may form a round head, instead of running up to a pole—a corner of the lot will therefore generally prove the best spot. The Hemlock, Balsam Fir, American Arbor Vitæ, White and Black Spruce, and Austrian Pine, may be introduced, and variously intermingled. Among the smaller evergreens, to be placed towards the inner side of the plantings, are the common Juniper, the Red Cedar, the Tree Box, Savin, &c.

Two or three trees of the mountain ash, placed among the darker evergreens, will afford a pleasing contrast in winter by their brilliant, scarlet berries. The deciduous trees should be placed within, but not wholly so, or be somewhat mixed through them, that there may be a natural gradation from one to the other—for which reason, some of the finer formed and most symmetrical or graceful evergreens should be occasionally placed in the inner parts of the grounds.

Among the best small deciduous trees and large shrubs, are the Horse Chestnut; Weeping, Golden-bushed, and Flowering Ash; Tartarian Honeysuckle, Large-flowering Philadelphus, Siberian Lilac, Honey Locust, Rose and Scarlet Hawthorn, Chinese White Magnolia, Cercis or Judas Tree, Cornelian Cherry, Virgilia, Laburnum, Purple Fringe, Striped Maple, and Privet.

A very comon error, which must be carefully avoided, is to dot over irregularly the whole surface of the ground, so that when the trees become large there is a *uniform* mass of confusion. Although straight lines are to be avoided, and the natural mode of planting adopted, yet there must be a *meaning* in the position of every tree. The ground must be left open or nearly unplanted in the direction of the finest objects of view, whether they be near or distant; and uninteresting or repulsive objects hid by dense evergreens.

Where shelter is no object, and where little

care can be taken to keep the ground in order, a very few large or park trees, with plenty of room between them, will answer the purpose best. These may be Oaks, Black Walnuts, Elms, Maples, Catalpas, Chestnuts, and Tulip Trees. A very few of the larger evergreens may be introduced, such as the White Pine, Norway Fir, &c.

Culture of the Rape Plant.

Agreeably to your request, I herewith furnish you with the results of my experience in the culture of the rape plant for the two past seasons. In the spring of 1854, I received from the Patent Office a package of rape seeds. They were sown about the 15th of June at the time of sowing Swedish turnips. The land the previous year, (1853) had been well manured and planted with field carrots and parsnips. The manure used for the rape and turnips, was guano at the rate of 300 lbs. per acre. Both kinds of plants came up well and grew finely, but the rape took the lead, altogether. As I hoed them, thinned the plants to the distance of 8 or 10 inches. Some time in August I found the plants stood too thick in the drills. I commenced cutting every other plant and feeding them to my cows, but in the course of two weeks, the plants had become so infested with lice that I abandoned them to their fate. The extreme drouth of that season and the lice killed nearly every plant before the frosts came. My Swedes and cabbage were but little better.

This year, the first week in June, I carted on to a plot of smooth grass land, warm, fresh manure, at the rate of 30 cart loads per acre, which was evenly spread, and turned under by the plow from 6 to 8 inches deep; the inverted sod was pressed down with a heavy roller, then well harrowed lengthwise the furrows; with a kind of horse rake, drills were marked out at the distance of 27 inches; a sprinkling of De Burg's superphosphate was deposited in the drills; seed sown by hand, and covered by the use of a common hay rake. The plants came up in a few days and were not injured by the "fly," or "any other creature" through the season.

In July commenced thinning the plants, (and fed them to my cows, morning and evening,) till they averaged about two feet each way. This brought it up to sixty-five days from the time the land was plowed. At that time, I cut at the surface of the ground, every other plant on an average plot. The lightest plant weighed three pounds four ounces; the heaviest, nine and a quarter pounds; the whole number averaged a little over five and a half pounds per plant. There were fifty-six plants per square rod. But to be sure of not over stating, I will call it fifty plants per square rod, which gives just twenty-two tons per acre of the choicest kind of green food for cows, &c., in less than sixty-five days from the time the seed was sown. I then commenced cutting the plants, twice daily, for my cows till they were used up, (by which time I had a full supply of Early York Cabbage to succeed, as green food for my cows,) numerous sprouts sprang from the stumps which produced several tons per acre of second crop. In cutting my rape plants, they were taken off at the surface of the ground; this was wrong; the stumps, should have been left some four inches long, and then they would have produced a much larger second crop. The past season with us has been very wet and cool, perhaps much resembling the climate of England which is much more favorable to the cabbage and turnip tribes of plants than our usually hot and dry summers.

In England and other portions of Europe, the rape plant is extensively cultivated both for green forage, and for its seed, from which large quantities of oil are extracted for illuminating purposes. The rape cake (the refuse after the oil has been expressed) is a concentrated and a valuable manure, especially for the turnip plant.

Some two years since, a quantity of rape seed was imported by the Light House Board, with the view of testing the practicability of cultivating the plant in this country for the purpose of manufacturing oil.

Large quantities of this seed are annually imported into the United States at an expense of $3 or $4 per bushel, for feeding to cage birds.

When the plant is cultivated for its seed, it is sown in August, and blossoms and perfects its seed the following summer. I am doubtful whether the plants would survive the winters here at the north. But in the latitudes where the cabbage and turnip will withstand the winters, the seed might be profitably grown.

From the results of my experiment in growing the rape plant the past season, I think most farmers would find it for their interest to cultivate it for the succulent food, which its thick, fleshy stems and leaves supply to cows, when other green fodder is scarce. Perhaps the better way would be to sow a patch as early in May as the season will admit, and one or two late sowings, in June and July.

The past summer, from the 10th of July till 10th of September, my family numbered from fourteen to eighteen persons. Eight of them boarders from Boston. I kept but two cows—milk and cream were used with the greatest freedom; yet, during the two months, we churned from four to six pounds of butter per week. The cows ran in an old wire-grass pasture, that has been grazed over eighty years—but a wheelbarrow load of the rape plant, night and morning, during the time, tells the secret of the story. LEVI BARTLETT.
Warner, N. H., Nov. 23, 1855.

Laborers' Cottages.

Several correspondents have carried out our suggestions, made a year or two since, in relation to farm labor, and found them valuable. So great is the drudgery of farmers' wives and daughters, where they are obliged to board a large number of hired men (to say nothing of other and more serious evils,) that we think the plan of employing married men who board at home, should be adopted, even if it costs something more. Our own experience is, that it is decidedly cheaper, as a man can always furnish his own provisions at less than another is able to do it satisfactorily. A farmer who tills about 700 acres near Pittsburgh, writes as follows:—"I have adopted the plan you suggested, and used the houses of my former tenants for this purpose, giving them house, garden, cow-pasture, wood, and team to draw it, for which I charge them one dollar per week, as long as we are mutually suited. I pay them for six months at the rate of sixteen dollars per month, and twenty per month for two months in harvest—and for the four remaining months, ten dollars per month. Half the wages are withheld till final settlement, out of which the rent is taken. I have found the system to work well, and have come to the conclusion that it will *pay*. There are some annoyances which I think I can correct in another season, such as pigs, poultry, &c." The wages paid by our correspondent are considerably less than are allowed in many other places, to good faithful hands, which are always the cheapest in the end.

Inconsistencies in Cultivation.

The disposition, habit, fashion, or other cause of neglecting the culture of fruit trees, is so common, that we fear it will be a long time before the evil is thoroughly reformed. There seems to be a very common determination to give them the *last chance*, of all cultivated crops. A row of *currants*, for example, is planted in a garden; it will indeed bear well with neglect; but an annual manuring and thinning out of old wood, would at least triple the size of the fruit, and improve its quality. The row of currants will furnish a daily supply of refreshing fruit to the table, for months together; why should its culture then be totally neglected, when a row of corn by its side of equal length, that will supply only a single feeding to a pen of swine, be most carefully manured, watched, plowed, and hoed? We have not unfrequently seen farmers, who after expending a quarter of a dollar each on a young orchard of trees and in carefully setting them out, would destroy one half by choking them with a crop of oats or clover, because they could not *afford* to lose the use of the small strip of land a few feet wide in the row, which ought to have been kept clean and cultivated. The same men would regard it as insanity to plant corn among the grass of a meadow, or in a field of oats, although the planting would not cost a hundredth part of the value of the young trees. In other cases, farmers may be seen driving their teams and plows directly over a young fifty-cent tree, tearing its bark and risking its life, in order to avoid running over an adjacent potato-hill, not worth three mills currency.

There seems to be two or three causes for this strange behavior. One is, habit, or doing so because others do. Another, is a sort of indefinite notion that trees will take care of themselves. A third is an almost total want of appreciation of the real value of trees. A volume might be written on the subject; but we can only add here in a few words, that no growing plant feels more the life-giving influence of good cultivation than young trees—the difference between good treatment and neglect often being as great as *twenty to one*, as shown by the actual measurement of the growth. A single acre of well chosen trees, has produced fruit for a regular family-supply for months together, that has saved in provisions, to say nothing of increased health, at least ten times as much as some would raise from the same acre in ordinary farm crops: and we could cite several cases where a five or six acre orchard has brought a larger return of money than all other sales from a hundred acre farm.

Black Knot.

This excrescence on the plum, if kept *constantly* cut off, has been found by good cultivators, to give very little trouble, besides the vigilance required in watching for it. We have discovered that in *every instance* where the remedy has failed, it has been either left till the disease had first made considerable progress, or else the knots had sometimes been allowed to remain for weeks or even months together before a thorough excision was made. With good cultivation, to keep the trees thrifty, they will soon outgrow any amount of lopping they may receive; and as we have before observed, a solution of chloride of lime will destroy the poison of the disease where a wound has been made, and prevent its bursting out again.

We make these remarks at the present time, because during the season of foliage, some of the excrescences often escape observation, and they should now be all carefully removed, as they may be so easily seen—and prevent the circulation of the poison or disease through the sap.

Bloody Murrain in Cattle.

MESSRS. EDITORS—In your paper of Nov. 29th, I noticed inquiry by J. M. JESSUP of this state, in relation to the bloody murrain. Having had some experience in this disease, or rather having formerly lost a number of cattle by it, I think I am somewhat prepared to venture a few opinions and suggestions in regard to it. It has been supposed by some that the disease is occasioned by the animals swallowing leeches with their drink, and some have affirmed that they have, on a post mortem examination, found them attached to the stomach or intestines of the animals. But I have examined a number of cattle of my own, that have died with this disease, and could never discover any thing of the kind. I am fully convinced that it is caused by the kind of food the animal gets, as suggested by your correspondent—whether by one or more vegetable products, I am unable to say.

When this section of the country was new, and cattle lived almost wholly on the wild grasses and other indigenous products, to hear of their dying of murrain was an almost daily occurrence. But as soon as the farmers began to have "tame feed," as the term was, the murrain was less frequent; and now it is a rare thing to hear of a case.

"As to remedies," I have tried them, to no purpose. The real remedy consists in prevention. Let me say to your correspondent—give your cattle good timothy; redtop, red or white clover, and plenty of salt and ashes, (two parts of the former, to one of the latter,) twice a week, and not allow them wild food, and they will no longer be troubled with murrain. B. J. HARVEY. *Adrian, Lenawee Co., Mich.*

Profits of Potato Raising.

In the year 1855, a piece of ground, measuring 128 rods, or a little more than three-fourths of an acre, was planted with potatoes. The soil was a sandy loam and had been planted previously with corn. A light coat of manure was plowed in. The potatoes were planted in furrows, made by a one horse plow, about 3 feet one way by 12 in. the other, and 6 in. deep. Whole medium sized seed was used, and 20 bushels on the piece we speak of. They were covered about 3 inches deep with a hoe. When the potato tops were all out of ground, a plow was run between the rows, and as near as could be, they were covered 3 inches deeper, leaving the ground nearly level, and very few tops in sight.

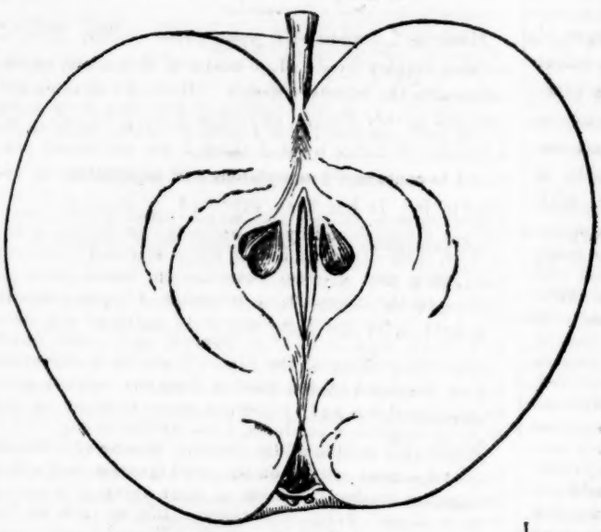
A fortnight after this, they were hoed by hand, solely for the purpose of subduing the weeds.

On the 10th October they were dug, and the yield was 165 bushels. They were mostly large, smooth, and sound.

The following is the debit and credit of the account:

CR.	
165 bus. Potatoes, at 50 cts.,	$82.50
DR.	
Hauling Manure,	$ 3.00
Plowing,	1.75
Harrowing and Spreading,	1.00
Planting,	3.00
Cultivating,	6.00
Digging,	12.00
20 bus. Seed,	20.00
Manure,	6.00
Interest and Taxes,	11.00
	$63.75
Profits,	$18.75

You will see that the estimates for digging, seed and interest, are liberal. It costs some men, for instance, but 3 or 4 dollars for digging an acre. Who can say that farming does not pay? A neighbor of mine sold $210 worth of *early* potatoes from an acre last year. J. N. BAGG. *West Springfield, Mass.*



The Sailly Apple.

MESSRS. EDITORS—I enclose herewith an outline and description of an apple which has been cultivated in this vicinity to a limited extent, for the last 30 or 40 years, and is much esteemed as a desert apple. I first found it in the garden of F. L. C. SAILLY, Esq., of this village, growing beside several other very choice kinds, such as the Fameuse, Red Autumn Calvill, Reinette a Cote, &c.; the two last named are of French origin, and Mr. S. thought it quite probable this apple was also from France, but could not give me its name. He supposes it was grafted by his father Peter Sailly, Esq., at least 40 years ago. I have propagated it for the last ten years by the name of "Sailly Antumn." I have quite recently discovered that it is a seedling of this town. The original tree now stands on the farm of J. H. SANBURN, Esq, and although very old and diseased, it bore a good crop this season. There can be no doubt of this being the original seedling tree. I judge from close examination of the tree, the appearance of the sprouts from the root, and Mr. Sanburn informs me that there was not a grafted tree on the farm when he bought it, and this tree stands in the back part of the large orchard, a place not at all likely to be selected for the only choice grafted tree on the farm.

I consider this apple well worthy of cultivation. It has a very peculiar and agreeable aroma, quite distinct from that of any other apple I ever tasted.

DESCRIPTION OF THE SAILLY APPLE.—Medium to large; oblate-conical; surface smooth, and color bright rose in small stripes and dots on a greenish yellow ground, the exposed side frequently deep red. Stem, one half inch in length, inserted in a shallow cavity. Calyx small, closed, and in a small, narrow, sometimes wrinkled basin. Flesh, very tender, juicy, rich, high flavored, with a peculiarly pleasant aroma. Tree of rapid growth, upright, wood dark short-jointed; buds prominent and long; very productive—20th Sept. to 20th Oct. JOHN W. BAILY. *Plattsburgh, N. Y.*

[Having met with this apple, we have been inclined to regard it as worthy of attention, and from some years recollection since we saw it, believe it may stand as high as "very good," in the scale of the American Fruit Congress. EDS.]

Culture of the Locust and Chestnut.

A correspondent proposes to plant a sandy ridge of land with a mixture of the Yellow Locust and Chestnut, and inquires the best mode.

We would first plow the land, and get it into a fair state of cultivation, in order that the young trees may have a vigorous growth during their early years. We would then plant the two sorts in alternate rows, twelvefeet apart, that is, one row of locusts, then twelve feet from this a row of chestnuts, and so on. The best way would be to plant them in "hills," about four feet apart in the row. The intermediate twelve feet space may then be cultivated at first with corn or potatoes, in rows with the trees—and thus save expense. A few seeds being put in each hill, all may be allowed to grow for a year or tw, and then the strongest plant selected, and the rest pulled out. This will give all vigorous trees at regular distances. When large enough for posts or rails, or in about ten years, every alternate tree may be cut out and used, which will leave plenty for larger growth. These may be again subsequently thinned, if desired. Those who have experienced the difficulty of trying to drive a load of timber through the crooked windings of a common piece of timber land, will now see the great advantage of straight rows for the passage of the team, in drawing out the cut timber.

It is perhaps hardly necessary for us to say, that the locust seeds will not grow, unless *swelled* by scalding—nor will the chestnuts, unless taken fresh and moist, and packed in moist sand or leaf-mould till planted.

An advantage in *alternating* the two kinds, is in case the locust should ever be destroyed again by the borer, the chestnut will grow and fill up the space. If placed too near or both in the same row, one might crowd or injure the other.

A great advantage will result from a few years of horse cultivation at the commencement.

Plaster for Potatoes.

Last Spring Mr. A. TYLER, one of my neighbors, having hired some land of me, on which to raise potatoes, I gave him seven rows—thirty-six rods—through the field which I used for raising my own potatoes.

We both planted with peach blows the same day, hoed twice each, at the same time, and harvested together. In planting, Mr. T. used a little the largest seed—rolled in plaster when fresh cut, and planted with the cut side uppermost. He also applied some ashes and plaster mixed, at hoeing. I used neither ashes or plaster; and the season commencing very dry, I soon had occasion from the looks of the tops, to offer twelve rows for his seven, which was refused—and now for the result. Mr. T. dug seventy-two bushels—fifty-five of them large and sound, while I dug but thirty-eight bushels, of which thenty-four were large; or

Plastered potatoes, 55 bush. large—17 bush. small.
Not plastered, 24 " " 14 " "

Shelburne, Vt., Dec. 13. ROBT J. WHITE.

Comparative Value of Guano.

Messrs. Editors — One of the vexed questions among agriculturists, is as to the value of guano as a manure, and I have often read articles in The Cultivator on that subject. My interest was considerably excited by such an article in the Dec. number, containing remarks or opinions of Solon Robinson and others. Upon reading such articles, the question always presents itself to my mind, why do not some of the agricultural societies who seem to be entirely at a loss what to do to promote the objects for which they profess to be organized, by a few well conducted experiments, settle the very important question as to the value of guano. The experiments should be directed to two points.

1st. What is the value of guano as compared with stable manure or other manures, in reference to the immediate crop for which it is applied?

2d. What are its ulterior effects upon the soil?

The first question I think is already pretty well settled, by the experience of many persons who have used guano. I think all persons who have used any considerable quantities of it, in a proper manner, are agreed that it is a very powerful and efficient fertilizer for the present crop. In my opinion the only difficulty, when it has failed to answer expectations, has been that there has not been enough applied. If spread over the ground and plowed or harrowed in, almost any quantity may be used without danger. I have myself sometimes used from 800 to 1000 pounds per acre upon cabbages, and even then the expense does not exceed that of horse manure applied only in the row.

The second question is that as to which farmers in this neighborhood are in doubt, and in consequence are afraid to use guano to much extent, or continuously from year to year upon the same ground.

There is no doubt that guano, if enough is used, will produce the first crop, and I believe fully equal to any thing that can be applied. I believe too that if any considerable quantity has been put into the ground, its effect will also be visible enough the next season, and perhaps for a third season. But this does not answer the question, what are its ultimate effects upon the soil? I have always been afraid that it acted, partly at least, as a stimulant, inducing the soil to part with its producing qualities, and thus gradually exhausting it. I do not suppose that this effect would be fully accomplished for several years, but I should fear that land would become poorer every year, that was forced by guano, until guano would cease to produce any effect upon it. But upon this point I am by no means certain. I have never tried any satisfactory experiments to ascertain the point; and in fact, to confess the truth, I do not like to risk such experiments. We require our land about as good as it can be kept, or it does not pay to cultivate it. I have been informed by a gentleman from the South, who professed to have used guano for a good many years, that after repeated application to the same land, it ceased to produce any effect; but I have not sufficient knowledge of his accuracy and attention to the subject, to rely upon his observations.

Now I would suggest, that some agricultural society that wishes to be useful, cause to be tried some such simple experiment as this. Plant, say two acres, of potatoes or corn, with guano—not less than 500 pounds applied to the acre, and plowed or harrowed in, and measure the result. The next year repeat the same in the same manner, and give us the result, and so the third year. By that time the effect of the experiment will be demonstrated one way or the other. The crops will grow better each year, or worse

Such an experiment would be in the highest degree important to the agricultural interests of the country. Nothing can be more important than to know whether an application to land of a substance so much used, is ultimately beneficial or ruinous.

This question is by no means a settled one among agricultural authors. Some authors in agricultural chemistry, say that no fertilizers will supply the place of bulky manures for a length of time, because the supply of organic matter, or *humus*, in the soil, can only be kept up by the application of large quantities of manure. But these same authors teach that this organic matter in the soil is not taken up by plants, and therefore is of no use until it is dissolved and changed into carbonic acid and the various salts. And it would seem from the various analyses of guano, that it contains a sufficiency of organic matter as well as of the salts and other substances necessary to promote fertility. In fact, several authors state that guano contains all the elements of fertility, and is capable of being a perfect substitute for stable or barn-yard manure. I am one of those, however, who would be much better satisfied with the results of actual experience than with theoretical conclusions, arrived at by an analysis of plants and then an analysis of manures, together with the supposition that these analyses ought to show the same substances in both, and in nearly the same proportions. A Subscriber.
Long Island.

Treatment of Meadows.

Messrs. Editors—I have been a subscriber to your valuable work for some years back, and have not seen any thing about our Schuylkill county farming, and yet I think we can make as much money at farming here as anywhere in this state, notwithstanding our county has such a bad name as an agricultural county.

My farm is situated, about an hour's drive from Pottsville, which is supported by the anthracite coal mines that surround it. The best paying crop that can be raised here, is Timothy hay. My mode of keeping my farm in hay, is, after mowing it about four or five years, to manure it heavily with barn-yard manure and compost, about the first of August, or as soon after mowing as possible; plow about ten inches deep, roll it with a heavy roller, harrow it twice in the same direction that it was plowed and twice crosswise; then sow about eight quarts Timothy seed to an acre, and roll it with a heavy roller to prevent the seed from drying up. The following summer, an acre will produce about one ton, worth $26—the second season, about 2½ tons; the price it is now selling at, $26, makes $65 per acre; the expense of mowing, making, hauling to market, and interest on land, $23, leaving a net profit of $42 per acre on 2½ tons.

My mode of getting sufficient manure is, to haul as much muck out of ponds along the river, in the fall of the year, as I can, into a heap. The following summer I haul about a hundred tons of manure from a stable where boat mules are kept, two miles from the farm, and make a heap as high as you can throw it with a shovel,—an alternate layer of muck and manure, making it pointed at the top to prevent the rain from penetrating it. In Germany they make their compost heaps from twelve to fifteen feet high, carrying the manure, &c., up a ladder in baskets, but I do not think it will pay where labor is so high as here.

If any of your subscribers have a better mode of keeping their farms perpetually in hay, they would oblige a young farmer, and no doubt a good many others, by letting it be known through The Culivator. E. B. P. *Schuylkill county, Pa.*

Remarks on Underdraining.

MESSRS. EDITORS—I have just finished the perusal of the CO. GENT. for Dec. 6th, and the first article on underdraining, contains so many thoughts and ideas, coinciding so exactly with what I conceive to be "sound doctrine" and good sense, and yet so rarely to be found in the agricultural literature of the day, that I cannot forbear an expression of approbation.

Now this matter of underdraining has been to my mind a sort of puzzle—that is, the newspaper talk about it, for, as far as my own case was concerned, I have never believed that it would pay; but I have carefully read everything that has come in my way for the last fifteen years, from the fine article in Stephen's "Farmer's Guide," and so on down to the last no. of your paper. The large experience of Mr. John Johnston of Geneva, and his remarkable success in this business, as detailed in your paper from year to year, has particularly attracted my attention. The agricultural press of the country have urged the matter upon the attention of the farmers. Even in Iowa we are told that we must underdrain. A gentleman of extensive and varied acquirements, gravely asserts that *nine-tenths* of the tillable land on the Western Reserve needs underdraining.

Now all this talk is very fine, but very few of these gentlemen in easy chairs, seem to have thought of the grand controlling question, "*Will it pay?*" That it has paid in the case of Mr. Johnston and some others, seems tolerably plain, but that the results with the rest of mankind would be equally favorable, remains to be proved. For my own part, I am unable to perceive the necessity of this universal drainage. It is easy enough to understand that in cases where the soil is encumbered with springs, hidden or otherwise, some sort of drainage must be resorted to, to render it dry and fit for plowing; but that high, rolling lands, even of a tenacious character, need all this underground work, I am not prepared to believe.

Springy lands constitute but a small portion of the country, and it appears to me that surface draining is all that the majority of the farming lands need, and certain I am that land must be higher priced than it is at the West, before underdraining as a system can be adopted.

I would not wish to encourage a mercenary spirit, but if our agricultural writers would ask the question, "Will it pay?" we might be spared the trouble of reading a great many foolish recommendations; for, undertake to get round the matter as we may, the truth stands boldly out, that no course of farm management is fit to be named, but such as is *pecuniarily* advantageous. Men of wealth, if they choose, can scatter their money foolishly, as they are doing every day on every hand—wasting money in a business they do not understand—figuring largely on committees at County Shows, and thinking common farmers foolish for not following in their foolish tracks.

It is a settled matter in the business world, that any trade or occupation must be self-supporting—else loss and absolute ruin will be the result. Of course the same thing must be true of agriculture.

It is probably true that a large portion of the land in our country would be benefitted to a greater or less extent, by thorough drainage, but it is not certain that it would *pay* at the present prices of land and produce; and I will venture the assertion, that instead of selling off a portion of their farms to underdrain the rest, a very large proportion of our farmers would do better to buy more. It may do in some portions of the older sections of the country, where the price of land is nearly stationary, to talk about selling, but the farmers of our country have felt too sensibly the effects of the "rise of real estate," to willingly part with their lands, short of a clear demonstration of the advantages to be derived.

The true economy of the farm, as appled to American Agriculture, is but poorly understood by a large proportion of our would-be agricultural teachers. In fact I believe that the actual practice of the farmers of the country, is far ahead of a part of the teachings we meet with in print, and hence one reason for the aversion felt by many to agricultural periodicals.

There are so many varying conditions that must necessarily influence the practice of the farmer, that mere theorists will have to stand back a while longer.

In closing, let me offer you my sincere thanks for the eminently practical character of your excellent paper the past year, and particularly for its fearless exposure of the miserable humbugs sought to be imposed upon the farming community by unprincipled adventurers. Long may the COUNTRY GENTLEMAN live to cheer the hearts and enlighten the practice of the American farmer. HAWK EYE. *Keokuk, Dec. 24th*, 1855.

Progress Among Farmers.

MESSRS. EDITORS—It is generally conceded that farmers as a class, are slow to improve and to adopt improvements in their occupations though as well informed as any other class upon all other subjects that concern the good of society. Let us look to a few causes which produce this result. One prominent reason, which may be offered as an excuse for them is, that there are so many humbugs in existence, called "improvements," by which their pockets are drained, that they look upon anything new with a suspicious eye, and are contented rather to follow in the paths their fathers safely trod, than to venture out upon unknown seas. But aside from this, there are other reasons which leave them no apology for their stand-still position. Knowledge is the great engine of progress, and it is the deficiency of this that constitute the principal draw-back to agricultural improvement. Our farmers would not so often be deceived with special manures and false theories of cultivation, if they thoroughly understood their occupation. Knowledge, said the great philosopher, is power. Give man that, and he can and will move onward, but without it he is weak and inefficient, and must stand still and let others who possess it pass by him. Mother earth has been so bountiful in supplying the wants of man that he has not been under the necessity of learning the causes which have produced the results of his labor year by year. But now long abused nature has at last risen against her oppressors, and demands remuneration. While they are suffering under her castigations, they know not what they have taken away, and cannot restore the ancient inheritance. Necessity is the mother of invention, and this must be the spur that will incite them to investigation. Another cause that hinders the progress of agriculture, is the isolation of farmers. Men learn to apply the knowledge of their fellows by associating with them. Association stimulates us to emulation as well as gives us an opportunity for gaining information. It is this lack of association that keeps agriculture so far behind the age in the general progress that is going on in all the other departments of labor. Every means then, that tends to bring our farmers to a better acquaintance with each other, as agricultural societies, papers, schools and colleges, ought to be encouraged by every lover of progress. Then will the "rationale" of their practice be discussed, and the science of agriculture be studied and promoted, and knowledge and progress go hand in hand. The cynic philosophy of those who maintain that the necessities of our existence will introduce all practical improvements, without these social helps and stimulants, is based upon false principles of human nature. J. H. S. *Blooming Grove, N. Y.*

Too Much Fruit.

A correspondent residing on a large farm in western Pennsylvania, writes: "The past season has been a very productive one—the only fault, we have too much—our fruit was so abundant that it was not worth handling, although on the river, canal, and railroad, only twelve miles from the city."

We have never yet known within our own observation, a crop of fine winter apples, of the best sorts, that did not command a good price in market, or such a price as would give from fifty to one hundred dollars or more per acre, provided the trees had been well cultivated and cared for.

We do not know the kind of fruit our correspondent refers to; perhaps it was of perishable and not long-keeping varieties. Or it may have been otherwise, but so much exceeding the crop of previous years in quantity, that dealers had nor prepared themselves to make such large purchases, which also occurred in some other places.

It may be laid down as a fixed rule, that no quantity of apples, unless of the sourest and most worthless character, is ever too large—all may be used in some way or other. Fed in a raw state, they are decidedly better than potatoes for fattening hogs; and unless quite sour, we have found them fine for both milch cows and horses, when chopped and mixed with meal. What a vast amount of excellent pork and fine butter might be made from the wasting crops of some regions. If farmers had large cellars, they could easily store for winter-feeding, all their surplus apples, and save their grain for market. Apples are much more easily gathered than any kind of roots, and cleaner to feed out. Why, then, are they so singularly overlooked?

Many trees have been set out of late years, but until the past, the seasons have proved unfavorable for heavy crops, the trees continuing all the while to increase in size. As a consequence, the past very favorable season threw a great quantity into market, beyond the capacity of the coopers, purchasers and forwarders to provide for. But when crops become uniformly large in successive years, purchasers will be found, provision will be made, our large cities will be supplied at moderate prices, and as a consequence of these moderate prices, the demand will become enormous, for every one will be able to use apples and use them freely, as a matter of family economy. Farmers always make the most when prices are low and crops abundant, so long as a market can be found. And we need not fear that a market will always be found, when a regular supply becomes known, so long as human beings require food.

In Europe, the great mass of the people are unsupplied, while we are deluged. A large quantity of the best long keepers, at low prices, will open a large market there. But the right kinds must be selected—those well adapted to this purpose; fruit raisers must learn to gather their crops more carefully, and without bruising, and to pack so as to insure a safe conveyance. There is much yet to be learned in this department of the business.

The only fear that need be felt in relation to too many trees being set out, is that *unsuitable kinds* will be selected. Yet the crops of even these will always prove profitable for home consumption, and for domestic animals, if no other market is to be found for them. We hope no one will be deterred from continuing to plant—good orchards will never prove bad property, if well taken care of, and the crops properly used.

Remarkable Adaptation of Seasons to Vegetation.

Probably the present age has not furnished so remarkable an adaptation of seasons to the wants of vegetation, as the three lately passed, namely the hot dry summer of 1854, the succeeding intensely cold winter, and the past cold and wet spring.

1. We never remember so perfect a ripening of the wood of tender trees, as resulted from the extraordinary heat and drouth of 1854—growth ceased early, and the maturity of the wood was complete.

2. The consequence was, that although the thermometer sunk about 20 degrees lower than usual throughout the western part of New-York and the adjacent regions, less injury was done in many instances than in much milder winters. The Osage Orange, for example, was scarcely killed back—we have found no dead ends of shoots more than six inches long, on a four year hedge. In other years, when the warm and moist summer and autumn has favored a late growth, a much greater length of shoots has been destroyed.

3. In other cases, notwithstanding this previous preparation, the cold proved too intense for the trees, and this was especially so with the peach. There is no doubt that many trees would have died, had the following spring been suddenly hot and dry. The unusual amount of wet and cold weather, and the gradual approach of warmth, operated in the most favorable manner, and many who had given up their peach orchards as beyond hope, were surprised and gratified to see them come out handsomely into leaf, and make a vigorous growth, favored as they were throughout by a remarkably growing year.

And yet not a few cultivators thought *hard* of the ordering of Providence, because, first, they were subjected to so severe and long a drouth as that of 1854, and to so cold and wet a spring as that of 1855.

"One part, one little part, we dimly scan,
Through the dull medium of life's feverish dream;
Yet dare arraign the whole stupendous plan,
If but that little part incongruous seem."

Draining with Wood.

Mr. DINNING, in this vicinity, makes his drains, digging three feet deep; width at bottom fifteen inches; then lays at the bottom a fence rail; on each side of the rail a slab, nine inches wide, meeting at the cone, but not overlapping. Where the slabs meet at the ends, covers with a sod, to make the joinings tight The slabs used are the second cut from the log, and cost 3 to 4 dollars the hundred. This is considered the simplest, cheapest, and most durable drain that can be made. JOHN FISHER. *Quebec, Dec.* 1, 1855.

Thornless Blackberry—A New Variety.

MESSRS. EDITORS—It may be interesting to some of your horticultural readers to learn that there is in cultivation, a new variety of blackberry. I wish to premise that I am not in any manner interested in procuring the *sale* of plants of the variety. I shall attempt to describe, but as a looker on merely, to show you what is passing in our part of the horticultural world. As in the case of the New Rochelle berry, the discovery of this thornless variety was made by accident. A Mr. NEWMAN, residing a few miles west of this place, (Milton,) while walking in the fields, saw two blackberry canes together, covered thickly with their white blossoms, and observed that there were none of the thorns usual to the species upon either the main stems or branches. This peculiarity led him to expect something unusual in the fruit. He took from those two bushes in the fall, twelve quarts of luscious, finely flavored berries at one picking. He noticed also that the season of ripening lasted from five to six weeks, a period far beyond that of the ordinary berry. The canes were removed by him at the proper season, and these berries have been in cultivation for the market since that time, some three or four years. Mr. N. seems in no wise anxious to dispose of his stock, and I am not quite sure that he will be pleased with this much notoriety. A. A. B. *Faustledge, Milton, N. Y*

Measurement of Grain.

MESSRS. LUTHER TUCKER & SON—Some of the following rules I have picked up here and there, and if you deem them worthy of insertion in the "Country Gentleman" you are welcome to them.

GRAIN, &c.—1. When the grain, &c., is heaped in the form of a cone. Rule—multiply the difference of the squares of the perpendicular and slanting heights by the perpendicular height, and this product by .0095 This final product is the contents in bushels.

Formula. $(S.H.^2 - P.H.^2) \cdot P.H. \cdot .0005 = \text{bush.}$

Example—How many bush. in a conical heap of wheat, the perpendicular height being 35 in., and the slanting height 65 inches?

$$(65^2 - 35^2) \cdot 35 \cdot .0005 = 52.5 \text{ bushels.}$$

2. When the grain &c., is heaped against the side of the barn. The heap is now in the form of a semi-cone, and the formula is the same as the last with the exception of multiplying the difference of the squares of the perpendicular and slanting heights by *one-half* of the perpendicular height.

Formula. $(S.H.^2 - P.H.^2) \cdot \frac{P.H.}{3} \cdot .0005 = \text{bush.}$

Example—How many bushels of oats are in a heap against the side of a barn, whose perpendicular height is 30 in., and slanting height 60 inches?

$$(60^2 - 30^2) \cdot \frac{30}{2} \cdot .0005 = 20.25 \text{ bushels.}$$

3. When the grain is heaped in the corner of a barn, the figure becomes a quarter of a cone, and this is the

Formula. $(S.H.^2 - P.H.^2) \cdot \frac{P.H.}{4} \cdot .0005 = \text{bush.}$

Another week, if you wish, I will give a rule for weighing hay in the stack, &c. Hoping these may be of use, I remain yours truly, Q. O. Q. *Albany, N. Y.*

The Housewife.

MESSRS. TUCKER & SON—As we have been for some time a subscriber to your Cultivator, I take the liberty to send you a few valuable family recipes, that have been thoroughly tested, and that have never to my knowledge appeared in your paper.

For Curing Hams.

Make a strong brine; add one ounce of saltpetre to a ham; let them remain in the brine three weeks; then take them out and soak in water a few hours; then smoke.

To Preserve Hams during the Summer.

Slice and trim ready for cooking; pack in a stone jar, alternating a layer of ham and lard; cover tight, and it will keep perfectly sweet for a year.

An Excellent Pickle for Beef.

To one hundred weight of beef, four quarts of salt, two oz. of saltpetre, and one pint of molasses; mix well in water enough to cover the meat.

To Keep Fresh Meat in Summer.

Put the meat into a stone jar, and cover it with sour milk. By changing the milk once or twice, it will keep a week or more. Before cooking, wash the milk from the meat, and lay it in a little soda water a few minutes. It will make it very tender.

To Make Corn Bread.

Two qts. corn meal, one qt. rye, one qt. of sweet milk, one qt. of buttermilk, one teacup of molasses, one spoonful of salt, and one teaspoonful of soda. Beat with a spoon until well mixed. The crust, if not burned, will make excellent coffee.

For Cooking Vegetable Oysters.

After cleaning, cut into slices a quarter of an inch thick; boil in plenty of water until tender, with a few bits of codfish; salt and season with pepper, butter and cream, and you will have a soup almost equal to shell oysters.

For Cooking Asparagus.

Cut into bits half an inch long; boil in water enough to cover it; salt, put in a bit of soda the size of a pea to a quart, and season with butter and cream. New tin is the best to cook it in.

For Asparagus Toast.

Cook as above, with the addition of an egg or two, well beaten; prepare a butter toast, and turn it on.

Butter and Cheese.

A few words of my experience in making butter and cheese.

I have used the year past, Skinner's Patent Centrifugal Double Beater. It is the most economical and labor-saving churn I ever saw. It makes about ten per cent more butter than any other churn, and there is no waste of cream. The butter comes quick, and gathers very nicely. I wash my butter in the churn, if not too hard, and also mix in the salt before taking it out.

When I skim off my cream, I put a little salt into it, which prevents the white specks that so often appear in butter.

The churn answers for a cheese tub. If you like buttermilk cheese, turn your buttermilk back into the churn, warm your sweet milk, and turn in with the buttermilk—(the more sweet milk you put in, the more it will be like common cheese)—put in a little rennet, mix well, and let it stand until it comes; then break it up and let it settle; then drain it off, and season like other cheese; squeeze it into a bag, or if you have enough, press it into a hoop. It will be fit for use in a few days. A COUNTRY LADY.

Profits of Dairying.

MESSRS. EDITORS—In the Country Gentleman of Nov. 15, 1855, is an article headed "A Model Farm of the Empire State," in which is a statement of the management of Mr. Coffin, and when he comes to the dairy department, he gives the proceeds of five cows for seven months, at $259.32, including 5 calves at $25, and 100 lbs. of pork to each cow.

In the number for Nov. 29, is an article of Mr. E. M. Shepard, giving $326 53, or 65,30 to each cow, by which he claims to beat Mr. Coffin, who only made $51.86 per cow, during the seven months.

Now, allow me to find a little fault with both of the above statements, and I will fire my gun, which, though not very large, is a *leetle* louder than anything as yet—premising that the Green Mountain boys can't be beat in number or quality of cattle, horses or sheep.

Mr. C. allows each cow to make 100 lbs. of pork from the skim milk, (but does not say how much grain he fed, or how much the swine were worth when he commenced,) which I think is too much, and I will venture the assertion, that there is not a cow in the United States that will make 100 lbs. of pork in seven months from the skim milk alone.

Mr. Shepard falls into the same error, only worse, for after allowing 100 lbs. pork to each cow, he claims $18 to each cow for calves raised, as one would infer, from the skim-milk, which is twice as much as the skim-milk during that period is worth—and says nothing about the quantity of grain fed; and again, $15 for calves ten weeks old, is a pretty tall price for natives.

Mr. C. does not give a description of his cows, breed, age or quality—whether they are common cows, or worth two or three hundred or a thousand dollars each, as some of the imported cows are, which would materially decrease the actual profits. Neither do either of the gentlemen say where their butter was sold, whether at home or at market, allowing a discount for freight.

I will give my statement as follows: I have seven cows, varying in age from two to seven years—four of them are half-blood Ayrshires, and three native—all very small, some not weighing 750 lbs., and worth about $40 each in the spring. Two of them are heifers, and did not come in until the 12th of June. I also had the use of a three-teated cow about five months, which would make the heifers nearly as good as the cows. I fed ten bushels of oat meal in the spring, before the cows went to grass, of which they have only had common pasture. I will not include pork or calves, of which I have kept an exact account, or premiums, which amount to some $10—but will give you what I call the exact product.

I have not carried out the prices or items of butter, for I sold fast as made, delivered at Montpelier Depot, 4 miles, and mostly to one man, at prices ranging from 22½ to 30 cents per lb., but put the same all in one item.

Between April 15 and Nov. 15, 1855, 683½ lbs butter,	$167 43
Oct. 22, 1262½ lbs. cheese sold for 11 cts. per lb.,	138.87
5 quarts of milk used daily, which is a small estimate, for 214 days, at 2 cts.,	21.40
	$327.70

Which is $46.81 for each cow.

Now Mr. Coffin's statement only foots up $188 92 for seven months' butter and milk only, which is $37.78 2-per cow, and Mr. Shepard's statement only foots $186 53, exclusive of calves and pork, which is $37 30 3-5 for each cow, and not quite up to Mr. Coffin after all.

I will now leave it with you, Messrs. Editors, and the readers of your valuable paper, to judge as to who beat, and will trespass upon your patience only to add that I can name a number of persons in this town, whose dairies will average over $40.00 to each cow, without taking into account calves or pork. A. D. ARMS. *East Montpelier, Vt, Dec. 3d.*

Raising Pork.

JOSEPH GREENE, of Macedon, N. Y., has furnished us a verbal statement of his mode of raising and fattening swine for pork, which he has practiced with uniform success for the past nine years, and which we think is worthy of attention.

He commences with spring pigs; and at the outset takes care that they are no more in number than he can furnish abundant food for. He feeds them milk,—sour milk from a small dairy—but does not allow it to become diluted with dishwater or slop of any kind, which is thrown around his fruit trees. He thinks a great loss is usually sustained by feeding pigs *diluted* drink, instead of the most concentrated liquid nourishment. His experiments also prove that more and better pork may be made by having as few pigs as will eat the food, than by the more common attempt to do a great deal with a little, or in other words of having twice as many animals, and trying to fatten them on short allowance. Meal and bran are added at a late period, as needed; and before midautumn, they are fed mainly on the ground meal of *old* corn. They are not found to thrive so well on new corn, and fail on "nubbins." They are always kept up, and not allowed at any time to to feed on so bulky and comparatively unfattening a food as pasture. After about six months treatment in this way, or rather when only six months old, they weigh about 300 pounds each. Last year, at seven months of age, three weighed in the aggregate 956 pounds. This year, the only one as yet butchered weighed, at six months and ten days, 298 pounds. This weight is taken after the animal is *dressed*. They are "the common breed," which in this part of the country appears to be a slight mixture of some Berkshire with a little Leicester blood, with more of an older and less favorable "native" sort, long known through the country. He ascribes his success entirely to the mode of management, and not to any superiority of blood or breed.

Crop of Corn raised by J. S. W.

Field contained one acre and 71 rods, greensward. Manured with 120 horse cart loads of stable manure, plowed 8 inches deep, and well harrowed. Marked in rows each way 3 by 3½ feet apart. A single handful of the following compost was put in each hill,—2 parts night soil, 6 parts loam, 1 part ashes and 1 part fresh slacked lime. The night soil and loam wrere composted a year before using. Variety of corn—long eight-rowed; planted dry with hand planter, May 16th. In a part of the field only the compost was covered before planting. All came up well and was immediately dropped with ashes and gypsum. At the first and second howing, the cultivator was used, and at the third, a small plow. At the second howing, 3 and 4 stalks were left in a hill.

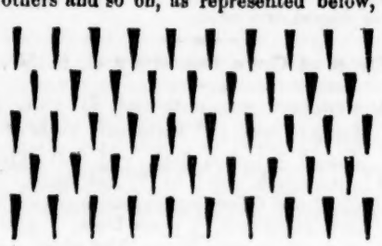
The corn was cut up, and carted to the barn before husking. The yield by actual measurment was 245 bushels of ears, each containing 17 quarts of corn—a fraction over 90 bushels of shelled corn per acre. *New Britain, Ct.*

What Shall be Done with our Old Pastures?

This is an important question, often asked, but yet unanswered satisfactorily. I will venture a suggestion—it is all *theory*, never *practiced*, that I know of—with regard to *one kind* of pasturing. I mean sloping land, free from stone, producing but little grass, of a fine moss-like kind, with here and there a hard-hack, occasionally a bunch of brakes, and inclining to swell up in hammocks, often as large as a bushel basket, about productive enough to feed one cow poorly to five acres. If plowed up once in eight or ten years, it will give a moderate crop of rye, and then a little more grass for a year or two, after which it becomes more dead and unproductive than before.

Now the probability is, that such land refuses feed, less from a lack of the proper elements of grass, than from its containing injurious matters. It will be noticed that water oozes from the surface, after rains, instead of sinking through the subsoil. The land is infested with poisonous substances, often the soluble protoxyd, or some soluble salt, of iron. A pan is formed, which prevents the water passing down. It consequently finds its way along the slope, rendering the soil cold and heavy, and frequently after abundant rains oozes out at the surface. Now every one would say, the proper treatment for such land is, to underdrain it. But I fear it will be long before the owners will feel that they can adopt so expensive a process Now if it were to be underdrained, would it not be well to lay out the work so as to use the drainage water for irrigating the lower portions of the pasture? for, although these drainage waters would bring out the poisonous matters of the soil, and consequently would be themselves poisonous in their first effects, yet it should be remembered that those oxids and salts which are poisonous, when excluded from the air, are changed into other compounds, when exposed, and become either harmless or beneficial. But the immense benefits of drainage are little understood yet, and I fear it will be long before we shall see much of it, especially on pasture lands.

What I wish to suggest, is, the subsoiling of these lands, as a cheaper substitute for draining;—to run cuts with the subsoil plow down the hill, say 10 feet apart and 30 inches deep at the upper end, but shallower as you proceed, till they run out at the surface at the end of five or six rods; then from a central point between these run other cuts to an equal distance; and from these others and so on, as represented below, the size



of the line representing the comparative depth of the cuts in different parts. There would be no danger of the land washing, as the turf would remain undisturbed; and I believe that for $1 an acre, (say two pair of cattle and two men a day for four acres) an operation would be performed, which would be a pretty good substitute for underdraining, and which would give some benefit on the principle of irrigation. Who'll try it? BILL KNOW NOTHING.

Cut Glass should be rubbed with a damp sponge dipped in whiting, then brush this off with a clean brush, and wash the vessel in cold water.

Sheep Husbandry.

MESSRS. EDITORS—I send you the result of my experience and observation in relation to the profit arising from the various breeds of sheep for the last twenty years. At the commencement of my farming operations, I bought a hundred sheep, nearly all the merino breed, at an expense of two to three dollars each. I commenced a decided improvement by introducing superior merino bucks from the best flocks in our county, and by selling off the inferior portion of the flock, and supplying their places with better. After a few years of improvement, they attained a very even and beautiful appearance, and were indeed a valuable flock My first clip of wool sold for 65 cts. per lb., which. with the value of the lambs, gave a fair remuneration, above the expense of keeping. But, alas! an evil day began to dawn. Congress passed the Tariff compromise act,—a measure which gave a blow to the wool-growing interest both north and south, from which it has never recovered, and never will until men learn wisdom from experience. But for the folly and madness of our politicians, the wool-growing business might have been one of the most profitable branches of agriculture at the present time. My last clip of wool sold for twenty-nine cts. per lb., a reduction of more than one half under the operation of the act above referred to, and my sheep for 75 cts. to one dollar each At the present time very little wool is grown in this vicinity, except upon sheep designed for raising market lambs.

I have since turned my attention to raising coarse sheep for breeding purposes, and for this purpose I at first selected the Cotswold, but of late, in order to test the comparative value of the two breeds, I have purchased a few of the New Oxfords. Since breeding coarse sheep, my success has far exceeded my most sanguine expectations. The demand for a first rate article of coarse blooded sheep, is far in advance of the supply, and from present appearances is likely to be for years to come.

I will give you the result of my sales for the present year, and leave your readers to compare the results with those of raising fine sheep.

I commenced the winter with 35 sheep.

The sales from my flock for sheep, amount to.....	$472.22
The Premiums received at State and County Fairs,.	42.00
For Services of bucks,.....	14.00
Estimated value of wool (a very low estimate,)....	42.75
	$570.97
To keep my flock good I have been obliged to buy to the value of,.....	161.00
Which deduct from the amount of sales leaves,...	$406.97

I am aware that some breeders who have become extensively known have sold for much higher prices and have realized greater profits. T. L. HART. *West Cornwall, Ct.*

Domesticating the Buffalo.

EDITORS COUNTRY GENTLEMAN—The Creek Indians sometimes drive out cows to the Buffalo range and there kill their calves and supply their places with young buffalo. These on their return grow up apparently as tame as the other young cattle of the drove with which they range. Though the males when full grown are sometimes vicious and dangerous, pursuing those who chance to offend them.

I cannot learn that any full-blood buffalo have ever been raised from this half tamed stock. But there have been numerous instances of a cross between the buffalo bull and common cows.

Various attempts have been made to break and work these "black-horned cattle," as the Indians call the buffalo, but with very indifferent success. For although of strength inferior only to Barnum's team of elephants, they are so intractable and unruly as to be "more plague than profit."

Two years since a drove of some twenty "three year old" buffalo were driven east from the vicinity of Fort Gibson. It was said their destination was one of the large stock farms of Kentucky, where an effort was to be made to raise them. Of their further history I am uninformed—but I hope the effort may prove successful. For the white man and his iron horse are fast invading the last retreat of the buffalo and his hunter, and unless they give up their roving habits and wild life and become cultivators of the soil, both will soon remain only in the history of the past. YUNESSE. *Estun, Indian Territory, west of Arkansas, Nov.* 20.

Pumpkins for Milch Cows.

MESSRS. TUCKER & SON—I notice in No. 19, vol. VI, Nov. 8, an inquiry about the value of pumpkins for milch cows, and as I expect not only to be a subscriber, but a correspondent to your truly valuable paper, I will endeavor to enlighten your New-Hampshire subscriber with my experience and that of others.

Pumpkins are made up of

Solid matter, about,	3.00
water,	97.00—100

and possess very nutritious qualities, which are increased by the fruit being cooked. It has been ascertained, not only by myself but others who use the pumpkin in feeding milch cows, that the quality of the milk is much improved by this food. They contain much sugar. The seeds of certain melons, are used as a diuretic in medicine, among which are pumpkin seeds. If the pumpkins are fed to the cows with the seeds in them, the diuretic property of the seeds *more* than counterbalances their milk-increasing qualities, which pumpkins fed without the seeds, certainly possess. Let your correspondent feed two cows, the one with pumpkins with their seeds, the other with pumpkins with the seeds and fibrous (lignin) matter taken out, and carefully watch the result. He will find the animal eating seeds and all, give little or no increase in quantity of her milk, which will be rich, but will find that her urine is very sensibly augmented. This increased secretion from the kidneys, preventing a copious secretion from the mammary vessels or glands.

The other cow, fed on pumpkins with the seeds taken out, will give rich milk and more of it than before eating them, with no appreciable increase of urine. Such is not only a single experience, but well attested by many persons. H. H.

Draining with Wood, Tiles, &c.

I own a place of 20 acres adjoining the city, and am now making some experiments in draining my land, which has a hard yellow clay sub-soil, which is very retentive of water. The result upon an acre which I drained last year, greatly encourages me and leads me to the belief, that to those farming either for pleasure or profit, no money or labor can be so well expended as that spent in draining retentive or boggy land. I note the articles in your paper on the use of plank or boards for underdraining. It will not result otherwise than unsatisfactorily and unprofitably. I should much prefer the use of common fence rails to plank or boards. These, with a cross piece about 15 inches long, to support them, every 5 or 6 feet, will make a much more lasting and cheaper material than planks, to those who cannot procure stone or tile. I have used both stone and tile, and have also tried brush, the trimmings of a large orchard. This latter I shall examine in the course of a year or two, and will then report its condition. It has now been made more than a year. The rougher and more twisted the timber the better rails do they make for draining. To add to the durability it would cost but a trifle to char with fire the rails before putting down. Tell your friends who are using planks that it will prove "Love's Labor Lost." The rails are bad enough, but the planks are only one shade better than nothing. J. B. S. *Pittsburg, Pa.*

Cure for Hydrophobia.

We copy the following from *The Post*, published at Elizabethtown, Essex Co., in this state, of the date of Jan. 4th. It is certainly worthy of being remembered and tried:

In one or another of our exchanges we almost every week meet with fearful accounts of deaths by Hydrophobia. Some three years ago we published in the Post a remedy for that terrible disease: but it seems credence was not given to our statement, for it was never copied, to our knowledge. Yet there are still living many evidences of its efficacy. It was first prescribed on a consultation of three physicians, for an individual who had been bitten and badly torn by a dog known to be mad, and, we believe, after the individual had had one or two of the spasms so fearful to behold in a person suffering with Hydrophobia. The patient was cured and lived many years. Of the three Physicians but one still survives, a man of nearly 85 years, but he has had occasion to prescribe the same remedy, during a long term of fifty year's practice, for other persons bitten by rabid animals, and *always* with success. The last time was within our memory, between the years of 1820 and 1824 we believe, when several children in the south part of Chesterfield or north part of Willsborough, in this County, were bitten by a cat. Animals were bitten by the same cat, and went mad and died. We know not if any of the individuals bitten are still living in that neighborhood, but there are undoubtedly others who will remember the circumstances. A remedy so well known to have been proved a cure should be known to the medical profession and to the world; and we once more publish it, hoping that many others may imbibe a portion of the faith we ourselves have in it; and again prove its efficacy should an occasion unfortunately offer.

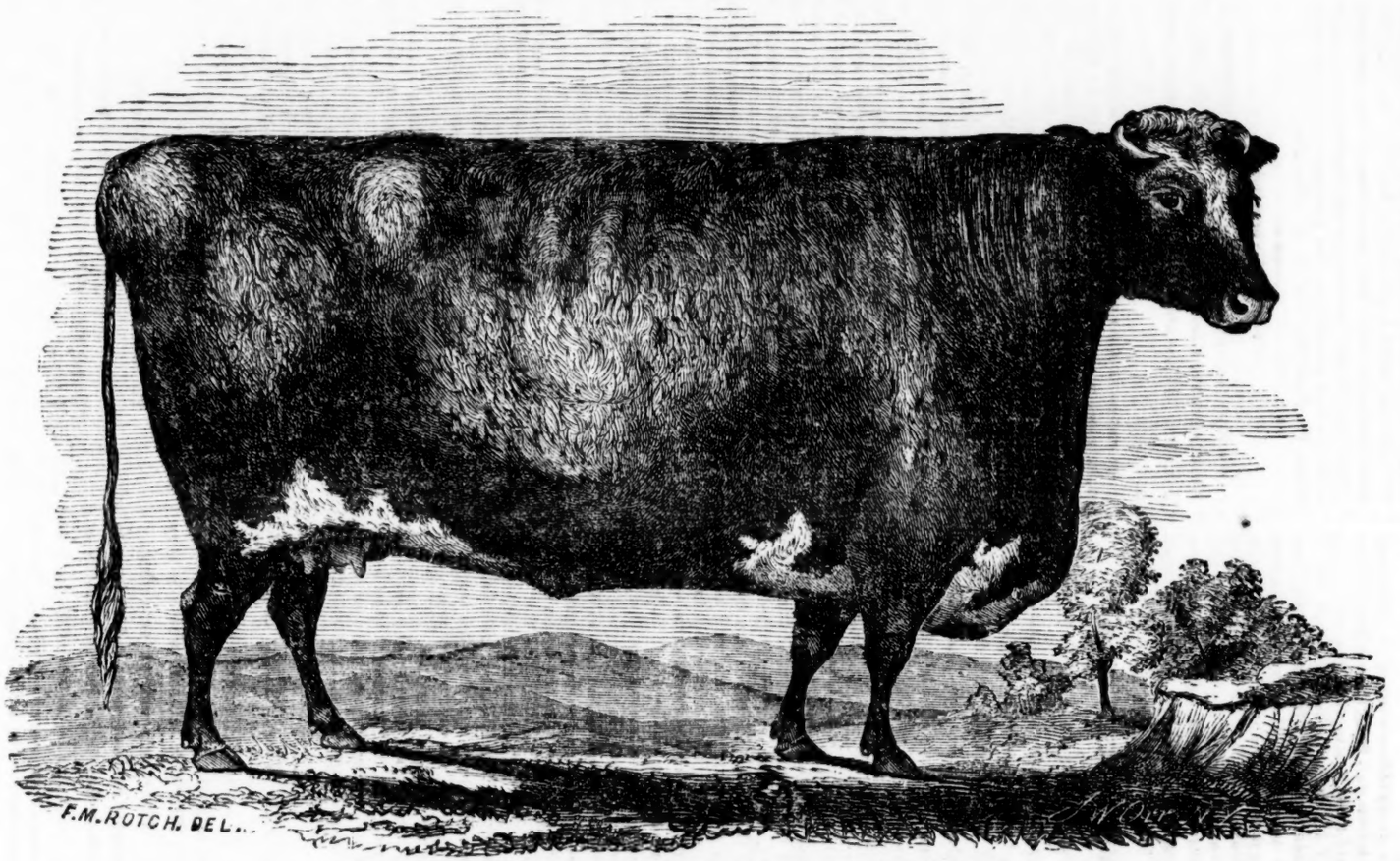
We give the recipe as written out for us many years ago.

RECIPE FOR THE CURE OF THE BITE OF A MAD DOG OR OTHER RABID ANIMAL.—"Keep the sore running or discharging matter as long as possible with powdered verdigris dusted into the wound, and give one grain of Turpith Mineral at a dose three times in the day, in a little dry sugar rubbed very fine and washed down with warm tea or water, till the mouth is slightly affected with the mercury, then stop till all the appearances of the affection of the mouth have disappeared; then repeat the course in the same way. Repeat the course three or four times in the course of six weeks, when I consider the patient out of danger."

To Make Yellow Butter in Winter.

MESSRS. EDITORS—For a churning of ten or twelve pounds of butter, take about three or four carrots—grate them fine, and press out the juice—then pour some hot water on them and press again. Take the juice thus obtained, and mix it with about a pint of new or sweet milk, and put it in the cream and churn as usual. J. A. W.

Glasses should be washed and rinsed in cold water, and the water wiped off with one cloth; then rub dry, and clean with another.



Mr. Thorne's Improved Short-Horned Cow Frederica.

PEDIGREE.—Red, calved Jan. 3d, 1851—bred by Chas. Towneley, Esq., Towneley Park, Lancashire, England—the property of SAML. THORNE, Thornedale, Washington Hollow, Dutchess Co., N. Y. Got by Upstart (9760)—dam, Feathers, by Duke of Cornwall (5947)—g. dam Lily by Fergus (3782)—gr. g. dam Purity, by Dandy (1902)—gr. gr. g. dam Resplendent by Blythe (797)—gr. gr. gr. g. dam —— by Midas (435)—gr. gr. gr. gr. g. dam —— by Boughton (90)—gr. gr. gr. gr. gr. g. dam —— by Windsor (698) gr. gr. gr. gr. gr. gr. g. dam —— by R. Colling's Son of Favorite (252.) She was imported in 1853, as a two-year-old, having already been a winner at the Royal Society of Engand, the Royal Irish, the Royal North Lancashire, and the Great Yorkshire Agricultural Shows. She had taken six prizes—one gold and one silver medal, and was one of a lot of three that won a handsome timepiece, given by the great Yorkshire Society for the three best Short-horns in the yard, (belonging to one individual,) open to all England.

The Sequoia Gigantea.

This remarkable tree, as most of our readers are probably aware, was sometime since discovered in California. Many accounts have been given of its wonderful size; and the few remnants of its race that yet exist—we think less than a hundred in all that have been so far found—would indicate that, like other giants, it is destined ere long to become entirely extinct. There has been some discussion as to its name, for while English naturalists, by whom it was probably first described, have called it *Wellingtonia gigantea*, Americans insist that a more appropriate designation would be *Washingtonia gigantea*. The *California Farmer* recently contained an account of one of these monsters "which had fallen from old age, or had been uprooted by a tempest," and the length of which, "from the roots to the top of the branches, was 450 feet."

Now to read simply of a tree four hundred and fifty feet high, we are struck with large figures, but we can hardly appreciate the hight without some comparison. Such a one as this would stretch across a field twenty-seven rods wide; if standing in the Niagara chasm at Suspension Bridge, it would tower two hundred feet above the top of the bridge; if placed in Broadway, New-York, at the head of Wall street, it would overtop Trinity steeple by one hundred and sixty feet, and would be two hundred and thirty feet higher than Bunker-Hill monument Boston; or two hundred and seventy above Washington monument, Baltimore. If cut up for fuel, it would make at least *three thousand cords*, or as much as would be yielded by sixty acres of good woodland. If sawed into inch boards, it would yield about three million feet, and furnish enough three inch plank for thirty miles of plank road. This will do for the product of one little seed, less in size than a grain of wheat.

By counting the annual rings it appears that some of the oldest specimens have attained an age of three thousand years. If this computation is correct, and we see no reason to doubt it, they must have been as large as our best forest trees in New-York, in the times of Homer and the prophet Elijah; and venerable and towering giants during the Carthagenian wars. In other words, "The Roman Empire has begun and ended" since they commenced growing. We hope the small plantation which comprises their whole number, will not share the fate of the world-renowned cedars of Lebanon on their native mountains, now reduced to a dozen in number, but that they will be protected and preserved, and only those that fall by old age be removed for exhibition. It would of course be idle to talk of transporting such a monster to this part of the country, weighing as it does some five thousand tons, and a portion of its shell only may secured as a fragment of such a specimen in natural history.

The figures at the head of this article represent the relative size of the gigantic Sequoia, and of the large forest trees in the more fertile districts of New-York, where elms and maples attain a hight of 90 feet, and pines 130 feet.

Products of a Cheese Dairy.

I have read in the columns of the COUNTRY GENTLEMAN, of the products of dairying in other counties; and am induced to speak a little of what we are doing in Washington County.

My own dairy consists of 28 cows, 3 three-years-old heifers, and 2 two-years-old heifers. These 5 heifers I call equal to 4 cows, which would make 32 cows.

From these cows we have made during this season, 17,435 lbs. cheese. The most of it has been sent to New-York, and sold by Ludlum & Leggett, commission merchants. Theirs I consider a first class house for selling good butter and cheese.

17,435 lbs. cheese, after deducting freight, cartage and commission, amounts to,	$1,703.65
780 lbs. butter, at 22 cts.	171.60
370 gallons milk sold, at 14 cts.,	51.80
4 quarts per day for family use,	43.80
30 calves, 4 days old,	30.00
4 Ayrshire calves, at $25,	100.00
Amounting to,	$2,100 85

or $65.65 for each cow.

Some of my cows are native breed—a part of them a mixture of English—the remainder Ayrshires. The latter I consider preferable for the dairy, not only for the large quantity of milk they give, but for the richness of the milk, and their peculiar properties for holding out their milk late in the season.

There are some 15 or more other dairies in this town alone, of over 10,000 lbs. each, besides many of lesser note. Several of those dairymen are improving their breed of cows, in order to increase their products. OTIS DILLINGHAM. *Granville, N. Y., 12th mo. 31st.*

Remedy for Lice on Poultry.

In answer to "A Subscriber," Saratoga Co. The best preventive, is cleanliness. Infested as your house is with them, you should give it a thorough cleansing. Clear it thoroughly, and give it a good coat of whitewash, and scatter slacked lime on the floor and perches. Any kind of oil or grease will kill lice on fowls; but that which is thin, is most readily applied, and most readily spread over the body. Dipping the chicks in tobacco-water will kill the vermin, but is likely to make the fowls sick and drooping for a while. Snuff scattered among the feathers, will thin off the lice. Wood ashes should be provided for the fowls to dust themselves in, and if flour sulphur is mixed with the ashes, it will be useful. Sulphur scattered in the nests of setting hens will tend to prevent them from getting lousy.

Experiments with Potatoes.

MESSRS. EDITORS—Seeing a statement in your paper of Dec. 6, 1855, of the cultivation of potatoes by the use of guano, on the sandy lands in the vicinity of Albany, and regretting with you that none of those using this fertilizer could give the actual increase of crops by the use of it, I thought I would give you my experience the past season with that and other manures on potatoes.

I had a lot containing ten acres of much worn sandy land, that had been under cultivation near fifty years, and probably but little manure of any kind had been applied to it.

The last crop previous to this, was oats in 1853. They were so short that I had to use rye straw to bind them with. Being satisfied that it was a waste of labor to cultivate it longer without manure of some kind, I let the lot remain idle in 1854, having failed to get a catch of clover with the oats. Sorrel and a species of June grass partially covered the surface. In June 1854, I plowed it quite shallow, and harrowed it smooth. In August and September I drew on 400 loads of swamp muck, taken from low ground, that had the appearance of having in ages past been the channel of the Mohawk river. From the shape of the land around this spot, by the shifting of the course of the river, it formed an eddy, and at the overflowing of the river a portion of the decayed vegetation, leaves and mud, was here deposited at each overflowing, until it became filled up about on a level with the water in the river at half banks full. I dug to the depth of eight feet, and did not reach the bottom of the deposit. The deeper I went, the richer appeared to be the muck. I make this statement of the character of the muck used, that others who may use swamp muck may judge of its quality by comparison with such as they may get.

The muck was spread, and remained on the surface of the ground during the winter. In the spring it was well harrowed to spread it more evenly, and plowed under about 8 inches deep. On 4 acres, I sowed 1200 lbs. of Peruvian guano, which cost in Utica sixty dollars a ton. On 2½ acres I put 25 common wagon loads of manure from the cow stable. The whole field was then well harrowed with a new long-toothed harrow, and marked out 3 feet each way. The lot was divided by a wagon road through the center. The east side of the road where the guano was put, was planted with Early Pinkeyes—the west side, 1 acre Carters, and 4 acres Rock Whites (an early variety.) On this side the manure was put, and in addition a large handful of coarse bone dust to each hill on the five acres, leaving trial rows at intervals. The bone dust was also applied to one acre of the land that had the guano sown on. This acre, and a few rows beyond it, had in addition to the bone, a handful of unleached ashes on the top of each hill. One acre had nothing but the muck.

To ascertain the product of each kind of manuring, ten hills were selected of each plot, as near an average as possible, the produce weighed, and calculation made from that for the yield per acre. I intended as stated before, that the rows should be 3 feet apart each way, but I got them a little farther than that. To ascertain the exact number of hills to an acre, I measured with a tape line twenty rods by eight, and counted the hills, which proved to be 4,284. The result:

Yield of Pinkeyes per Acre.

Muck and guano,	171	bushels.
Muck, guano and ashes,	165	do
Muck, guano, ashes and bone,	157	do
Muck only,	131	do

Yield of Whites per Acre.

Muck, Bone and Manure,	135	do
Muck and bone,	116	do
Muck only,	98	do

Yield of Carters.

Muck, manure and bone,	99	do
Muck and manure,	72	do

I was not satisfied with one weight of ten hills in the result between the guano, ashes and bone, but tried four different lots of ten hills each, with about the same results, and took the one that made the least difference between the different manures. It is beyond my knowledge of the results of chemical action, to account for a less crop with the addition of ashes, and still less by the addition of a handful of bone dust, the land being rather the best of the two in favor of the ashes and bone. Will you, Messrs. Editors, give your views on the subject?

About 12 bushels of the bone was used per acre, cost in Utica, 30 cents per bushel.

You will perceive by the above statement, that nine dollar's cost per acre of guano, added to the crop 40 bushels over muck only—the addition of a handful of unleached ashes reduced the crop 6 bushels, and the addition of a handful of bone to the guano and ashes, reduced the crop 8 bushels more. On the part planted with Whites, the handful of bone at a cost of $3.60 per acre, increased the crop 18 bushels over muck only, and the 10 loads of manure with the handful of bone per hill, increased the crop 37 bushels per acre. I think the land planted with the Whites was not as good before anything was applied to it, as the part on which the Pinkeyes grew.

I am aware that the above experiments are not sufficient to determine the relative value of the different fertilizers used, but by making these known to the public, some of my brother farmers may be induced to improve upon this experiment, and give the result hereafter for the benefit of us all. JAMES A. DIKEMAN. *Marcy, Oneida Co., N. Y.*

Our correspondent will accept our thanks for the results of his experiments. It would have been interesting to have known what the land produced without muck or manure of any kind. It is evident that this "much worn sandy land" had not, relatively to other ingredients, been impoverished of potash during the "fifty years" it was under cultivation; for while potatoes remove from the soil more potash than any other crop, the Peruvian guano which contains so little potash, gives a fair increase, while the addition of ashes, containing much potash, gives a no greater but rather a less yield.

Why the addition of ashes should decrease the crop six bushels per acre, we do not exactly understand. Unleached wood ashes, lime, &c. will set free the ammonia of guano, and should never under any circumstances be mixed with it. If the guano, however, was thoroughly incorporated with the soil, and the ashes afterwards spread upon the surface, we should not expect that they would liberate the ammonia, faster than it could be absorbed by the soil, or assimilated by the plant. It is possible, nevertheless, that in a sandy soil, this may be the case, and that the unleached ashes proved injurious by driving off the ammonia of the guano—its most valuable ingredient.

In Mr. COFFIN'S experiments on potatoes (see COUNTRY GENTLEMAN, vol. 6., p. 318) unleached ashes, applied in the hill, injured the plants and diminished the yield *one half*. May they not have slightly injured the plants in the above experiment?

We should expect little or no benefit the first year year from *coarse* bones. Why they should prove *injurious*, however, is more than we can account for, especially while with the *Carters*, they *increased* the crop eighteen bushels per acre!

We apprehend the real cause of these anomalies lies in the defective method of ascertaining the yield per acre. Ten hills, or the four hundred and twenty eighth part of an acre, is far too small a test plot to

give accurate results. Every one who has had any experience in making agricultural experiments, knows that a variation of one pound might easily occur in digging or weighing the potatoes—and this one pound gives seven bushels per acre, or a bushel more than the variation between the muck and guano, and the muck, guano and ashes. J. H.

Fruit-Grower's Society of Western New-York.

The Annual Meeting of this society, held on the 8th and 9th days of the present month, notwithstanding the intense cold weather which kept many away, was an eminently interesting and successful session. Nearly all the twenty-three western counties were ably represented. and the collection of fruits, for a *winter exhibition*, was probably never before equalled. A single collection of winter pears (from Ellwanger & Barry,) contained over forty varieties, many of them in excellent eating condition. Most of the fruits consisted of apples, and among the principal exhibitors of large coliections, were H. E. Hooker & Co., Hooker, Farley & Co., Ellwanger & Barry, J. W. Seward, and Frost & Co., all of Rochester; F. W. Lay and R. H. Brown, Greece; Stone & Cook, for several cultivators in Oswego County; J. J. Thomas of Macedon; John Donnelan, of Hanford's Landing; J. M. Mattison, of Tompkins County; T. Stillman, Dunkirk; E. W. Sylvester, of Lyons; and J. Park, of Gates, Monroe County, who presented fifteen sorts, half a bushel each, of very large and handsome specimens. A. Pinney, of Clarkson, exhibited Catawba grapes, in a state of most perfect preservation, with all the *bloom* and apparent freshness seen when growing on the vine;* and also several other fruits. C. L. Hoag, of Lockport, furnished a good collection of several sorts of winter pears. A collection of fifteen sorts of apples were presented from A. G. Hanford, Waukesha, Wisconsin. Charles Lee. of Penn Yan, exhibited nearly a bushel of the finest Wagener apples we have seen. most of them measuring about three inches in diameter. James H. Watts of Rochester, presented, as usual, a basket of beautiful Northern Spy apples. The King, or Tompkins County King, from J. M. Mattison, and others, attracted much attention, and received high commendation for its excellence and productiveness.

The number of members in attendance was quite equal to that of any session of the American Pomological Society, and the order which prevailed, and the deep interest which was manifested in the discussions, was never excelled in any meetiug of the kind we have ever attended. The deliberations were mostly confined to the subject of planting fruit trees on an extensive scale, or for market; and the facts which were poured in from all quarters, furnished strong confirmation to the opinion, that while the art of selecting proper sorts, cultivating properly, and marketing to the best advantage, is yet in its infancy, it promises more profit for an indefinite futurity, than any orther crop now cultivated in western New-York. The region embraced by the Society was shown to be unexcelled and perhaps unequalled for the successful growth of most fruits; and since the wheat crop has become so uncertain, the probability becomes greater that a main portion, at least, of profitable cultivation of the soil, will be the extensive raising of the best sorts.

We intend on a future occasion to give at some length, some of the interesting facts developed during the discussions, in relation to the various points here alluded to. It is intended to publish a volume of the Transactions of the Society, which is to contain the valuable facts collected from all sources by the Society, and which will doubtless constitute a rich repository of information in relation to fruit growing, and which will be sent to all the members, and to any others who remit to the treasurer the annual fee of one dollar.

[The present officers are, J J. Thomas, of Macedon, Pres't.; H. P. Norton, of Brockport, Asa Rowe, of Sweden, and E. C. Frost, of Catherine, Vice Presidents; J. B. Eaton, of Buffalo, and H. E. Hooker, of Rochester, Secretaries; and W. P. Townsend, of Lockport, Treasurer.]

* Preserved simply by hanging up. on the vine, in a cellar of the proper temperature and degree of dryness.

Osage Orange Hedge.

Having an old fence to replace. how soon can I depend on having an efficient hedge, if the plants are set next spring? An Inquirer.

We saw last summer at Rochester, an Osage hedge, four years old, that constituted the only barrier between a much frequented public road, and a fine garden—it was amply sufficient for the purpose. It was more than four feet wide at the bottom, and a little over four feet high. It had been very freely cut back in its early growth, so as to give a dense and wide bottom,—a most important operation in the treatment of all young hedges. The cutting back was done twice a year, and the hedge had received the best cultivation.

On the rich soils of central Illinois and in Iowa, powerful hedges have been made in *two years*; the best treatment being given, and the plants cut back as often as they continued to make a vigorous growth in each year.

Guano on Corn, Wheat and Potatoes.

Messrs. Editors—During the past season I made a few experiments with Guano, upon Wheat, Corn and Potatoes. Upon the corn I put it in the hill, covering it first with a little earth before planting the corn. The corn come up good and looked greener, and grew faster than that portion of the field which was not guanoed, and yielded better corn. On another field of corn, treated in the same manner, there was no difference in the yield, but the corn was a better color when it was young.

On the wheat I sowed the guano, early in the spring broadcast, about 250 lbs. to the acre. The wheat soon changed color., and grew rapidly, but in harvesting it, there was no difference in the yield.

On the potatoes I sowed part of the patch before planting, and harrowed it in, and part put in the drill, leaving the rest without any upon it. There was no apparent difference in one part of the field over the other in the yield. J. H. Strong. *Blooming Grove, N. Y.*

Bread—One of the most important household rules is, not to eat new bread, for it is expensive and unwholesome, and does not afford near so much nourishment as bread two or three days old.

Inquiries and Answers.

AGRICULTURAL BOOKS.—Our subscriber at *Youngstown, Pa.*, whose question on this subject last November, has been inadvertently neglected, will find in C. M. Saxton & Co.'s advertisement, p. 285 ANN. REG., 1856, a list of works, comprising many of the best that have ever been issued on Agricultural subjects. We shall cheerfully supply him with these, or he can order direct from the publishers.

PROPERTIES OF GAS-TAR.—By vote of the "Sinclearsville Farmers' Club," I was requested to institute an inquiry through the columns of your paper, in regard to the value of coal-tar or gas-tar, as it is called, in the preservation of wood, fence posts, &c. Will some of your contributors who have tried it, oblige us with a statement of his experience, with information as to where it can be obtained—at what cost, and all other useful particulars. W. W. HENDERSON, Sec'y. *Sinclairville, N. Y.*

We have never used gas-tar for preserving fence posts. We have, however, tried it thoroughly on wood used for other purposes, where constantly exposed to moisture and air, and all the other influences for decay. Its preservative power has proved remarkable. It was applied, *hot*, with a brush in two or three successive coats. Perhaps this would be insufficient for fence posts, where an exterior coating merely, would not answer. If heated in a potash kettle, and as many posts thrust in as practicable, no doubt the wood would become very effectually saturated. Unless, however, the tar could be purchased quite cheaply, the cost of this preparation would be considerable, as large quantities would be absorbed.

Gas-tar can be had at all establishments where gas is made from coal. Sometimes it may be had at a low price, but this usually depends much on the demand and supply, and can be only learned by local inquiry.

CRACKERS.—*C. F. W., Union Mills, Ind.*, inquires for a "first rate recipe for making crackers." He has never seen any of home manufacture, equal to the purchased article, but would like to.

CHINESE POTATO—*J. M. W.* Tubers of the Dioscorea batatus can probably be procured in the spring, of Mr. D. Boll of New-York city. We would, however, advise you to curb "your impatience to be doing something with this potato," and be content with Carters, Mercers and "Sweet Carolinas," at least until you can obtain a plant of the Dioscorea at something less than a dollar.

STOCKING A FARM—*M. G., Volinia.* We would not advise you to stock your farm with sheep of any breed; as a general thing they do not do well on "low bottom lands." You will find that the introduction of a good Berkshire, Essex or Suffolk boar will make a great improvement in the common run of swine.

TAXIDERMY—*J. D. I.* You will find an answer to your question, as to the best mode of preparing birds, &c., for a cabinet, in the first vol. of the COUNTRY GENTLEMAN, p. 292, or in THE CULTIVATOR for 1853, p. 180.

EGYPTIAN WHEAT.—*J. M. W.* If the plant you refer to, is the one we have seen under this name, it is not worthy of cultivation for any economical purpose. We have seen it grown only as a curiosity. The seeds should be planted in the spring in hills like Indian corn.

WHEAT DRILLS.—Having been a subscriber to the Cultivator since its commencement by Judge BUEL, I now regard it as an old friend of nearly 20 years standing, and am free to say that it improves on further acquaintance; hence my reluctance to discontinue its intercourse. Can you inform us through the pages of the Cultivator, how wheat drills stand the test of trial north and west, from disinterested testimony? Some of us Southerners are rather dubious about the policy of buying; fearing that we might be gulled, as we were in several kinds of reapers which we bought. The writer of this has proven to his cost, that there is much humbuggery in *some* of these reaping machines. D. H. H. *Chuckatuck, Va.*

We have been much among the wheat-growers of this and other States, and have heard no complaints against wheat drills. We believe they are found to answer all *reasonable* expectations. We must say, however, that we know many intelligent wheat farmers, who contend that wheat sown broadcast and covered with a cultivator, stands the winter better than that which is drilled in. Will our correspondents give us their experience with wheat drills?

SPRING WHEAT.—Which variety of wheat should you think the best adapted to this section—the Fife, Black Sea, or Canadian Club—where to be had, and price. S E. B. *Westminster West, Vt.*

Will some of our Vermont readers give us their experience with these varieties of spring wheat.

GUANO.—Please inform me what kind of guano is the best and where I could obtain a genuine article, and no deception about it. W. E. *Pine Plains, Dutchess Co., N. Y.*

Peruvian guano is the best. You can get the genuine article from any of the respectable dealers in New-York. We do not think there is much adulteration in Peruvian guano.

MUD AS A FERTILIZER —The coves along the river (Thames) abound in mud, which as a fertilizer, most of my neighbors consider valueless. Will you inform us through the Cultivator, how, if at all, it may be made available? N. DUSTIN *Montville, Conn.*

If any of our correspondents have used this mud as manure, we should be pleased to hear from them.

AMERICAN SHORT-HORN HERD BOOK, VOL. II.—R. R. G., Stanford, Ky. This is a large octavo volume of over 600 pages, with more than fifty portraits, got up in a style every way worthy of the subject. The price is $6 with 50 cents additional to prepay postage when it is sent by mail. Address the author, LEWIS F. ALLEN, Esq. Black Rock, N. Y. This work should be in the possession of every owner of Short-horns, and all our Agricultural Societies should obtain it, for the use of their committees.

MANURE AND SEED DRILL COMBINED.—In reference to the inquiry which appeared in a late number of the *Country Gentleman*, our attention has been called to a machine which plants corn and deposits plaster, or any similar manure, with it in the hill at the same time. It is made by Joshua Woodward of Haverhill, N. H., and is said to do the work better than it can be done by hand.

PLANTING LOCUST SEED.—In a recent number of your valuable journal, you recommend Honey Locust as capable of making a strong hedge with little care. I have adopted your suggestion, and planted a nursery also to supply plants for the breaks. There appears to be a difference of opinion regarding the mode of treating these seeds, and I have to appeal to you or your corresspondents for information. I was told by a gardener of some note, to scald both Yellow and Honey locust seeds, and to plant them in the fall; since then I have been told that they probably will perish during the winter. The soil is a sandy loam. Information on this subject will probably interest many. D. A. *Washington City, D. C.*

The seeds of the Yellow Locust need scalding to cause them to germinate. They remain in the water some hours after it has cooled, and the swollen seed only will grow. The process must be repeated on the unswollen ones. If planted in autumn, these swollen seeds would be liable to rot. Honey Locust seed do not need scalding, and should be planted in spring.

BLACK APPLE, &C.—Please inform me through *The Cultivator*, where I can obtain the Black Apple, the

Sweet Quince, and the Black Rose, and oblige ELI V. CLARK. *West Andover, O.*

The Black Apple, and several varieties of black roses may be procured at the larger and more extensive nurseries. We do not know a sweet quince, although the Portugal is less astringent than the common varieties.

"Is it necessary that a tree when transplanted should be placed as it stood before, towards the points of the compass?" *J. V.*

For common or small sized nursery trees, it is of no consequence, as among thousands we have seen set out and without one in five hundred dying, no pains whatever was taken to secure the same position. But in large trees, it is a matter of great importance—for a tree whose bark has been from the sun ten years or more, may be injured or killed if this is brought round directly in front of the hottest solar rays. We have seen some kinds of ornamental trees only six years old destroyed in this way. But our observations are too limited to say what trees suffer most, and what sorts least, by such change in exposure, nor at what age the danger commences. We invite the attention of planters to this subject.

ORCHARD AND RYE GRASS.—In regard to the inquiry on orchard and rye grass, their difference, &c., I would refer our "Friend of Progress," to the American Farmer's Encyclopedia, page 574, for the best description of these grasses, the climate and soil best adapted to their growth, &c. I have had but little experience with either, but have seen large quantities grown in Pennsylvania, where it is sown with other grasses, more for pasture than for hay. The seeds can be obtained in Philadelphia, of Buist, Rogers & Co, and Landreth, or of R. L. Allen, New-York. Price from $2,00 to $2,50 per bushel. W. F. SANDS.

DRAINING ON TO OTHERS' LAND.—A. H. informs us that he has a piece of land, the surface water from which had always passed off through a culvert in the line wall between him and a neighbor. Thinking that his lot would be improved by underdraining, he procured and laid his tiles so that the water would pass off through the culvert under the wall, where the surface water had always passed off, not supposing for a moment that he would thereby do his neighbor an injury, but rather a benefit, inasmuch as there would less water flow from the drain than from the surface. But his neighbor thought differently, and immediately made an embankment on his side of the wall, so as effectually to prevent the water from passing through the culvert on to his land. Our correspondent asks—"Is this, on his part, a legal act?" We are not sufficiently versed in the law to decide this question. Perhaps some of our friends, who are "learned in the law," will answer it.

CABBAGE FOR STOCK -Please give us the value of cabbage for feeding stock, compared with hay or corn—also the best manner of storing it for winter use. S. C. *North Springfield, Vt.* [Will some of our readers answer the above?

SHANGHAIS.—Can you or any of the many contributors, inform me through the columns of the Cultivator, where I can procure the real Shanghai fowls—full breed—and price for one or by pair? Any information on the above will be most gratefully received by a subscriber. H. E. L. [Any one who has the above fowls, can have the privilege of our advertising columns to answer the inquiry.]

TO MAKE EWES GIVE MILK AT LAMBING TIME.—Feed them for ten days previous, with soaked bran and carrots, twice each day, and give them a good warm stable, and I think that inquiry made in a number some time since will be answered, in reference to raising lambs in the winter season. H. A.

☞ Can any one inform J. B., Oregon City, Ill., where he can procure a pair of pure blooded mastiff or Newfoundland pups?

Extracts from Correspondence.

TEA WHEAT.—I saw in the Country Gentleman of Nov. 15th, information asked in regard to the comparative value of Tea Wheat with other varieties. As to raising wheat, I can say nothing only from hearsay. I have always heard the farmers speak well of it. As far as flouring is concerned, I can speak from experience, and say the true Tea Wheat is *A, No.* 1. It can't be beat by any spring wheat that I ever ground, for quality and quantity. Black Sea Wheat is the poorest flouring kind that has come under my observation; the berry is hard, and flours a little better than Canada Corn. It bears no comparison with Tea Wheat for flouring. The other varieties mentioned, I have not ground enough to know much about. MILLER. *Battenville, N. Y.*

MICHIGAN.—Extract of a letter from Ionia county—"We have in this part of Michigan, known as the Grand and Maple River Valleys, land that will equal any of the Hudson, Mohawk, or Genesee flats, and the price varies from fifty dollars to fifty cents per acre, according to location and improvements. Corn crops this season, are abundant. Wheat, however, was somewhat injured by being grown, which will have a tendency to affect the price of our wheat and flour in the eastern market. Corn has grown this year taller than I ever knew it. I had one field that would average eleven feet in height; the longest stalk I have measured, is twelve feet four inches; and ears set from six to seven feet from the ground. The potato crop was heavy, and not affected with the rot."

POTATO EXPERIMENT—Seeing an experiment with potatoes in late No. of Co. Gent., I am induced to give you mine, hoping it may be of some use to your readers.

Reading the challenge of I. W. Briggs in the Rural New Yorker, I adopted the following method: I cut the potato so that each piece would contain two chits or eyes—put one piece in a hill. The ground, which was rather poor, was manured with *two* wheelbarrow loads of well rotted barn-yard, mixed with one of leached ashes. This manured thirteen hills. The pieces were dropped, and a hand-full of plaster to a hill, and then covered. Planted June 13th.

One potato, weight half a pound, planted six hills which produced 80 tubers, weighing 18 lbs. Potato known here as "Log Cabin"—not affected with rot. J. H. B. *Newton, Ct.*

SPROUTED WHEAT FOR SEED.—In reply to a request in our issue of Oct. 25th, for information as to the results of using sprouted wheat for seed, a correspondent in Michigan writes us as follows:—"Without going more than from three to five miles from our residence we could point out to you ten or a dozen fields, where the wheat crop is making its appearance most ridiculously or most lamentably, according as your mood might be to laugh at or to pity the sowers of such seed. One field we could show you which has been plowed up or gone over with the cultivator in order to have it sown sufficiently thick with better seed. Out of one town, we believe, we could furnish more than a score of witnesses who could testify *from their own sad experience*, that wheat which has sprouted, is not reliable as seed."

DRAINING WITH PINE PLANK.—Jno. McReed inquires as to the economy of using pine plank for underdraining. That in a great measure depends upon the location. If he lives in a pine region, where stone are scarce, why pine plank would answer very well, be quite lasting, economical, and speedily put down With us, where small stone are plenty, and pine scarce stone are the most economical. J. W. L. *Kingwood,*

ESTIMATING HAY IN BULK.—A correspondent, in answer to an inquiry we recently published, says—"For timothy and blue grass it will require seventeen cubic yards to make a ton. Clover hay will require

512 feet, or 8 feet square. This is as near as can be ascertained by measurement."

A VERY GOOD YIELD.—One of my neighbors, Leister Smith, received the *first premium* at our County Fair, for the best five acres of corn. The yield was 425 bushels of shelled corn, estimated at 70 lbs. in the ear for a bushel of shelled corn. H. S. *Steuben, Ohio.*

LARGE RUTA BAGAS.—Having noticed in the Co. Gent. of Nov. 16, an account of large Ruta Bagas raised by Mr. Ireland, I thought I would say that this can be "out-turniped," and beat. Mr. BELDEN CASE of this town, (Johnstown, N. Y.,) raised this year a quantity of Ruta Bagas, some of which we weighed. One weighed 24 lbs. with the top or leaves on, and another one with the top trimmed or cut off, weighed 20 lbs. We have buried nearly all of them, but when we take them out of the ground, we will weigh 7 or 10 of them, and report to you the aggregate. A READER.

Seeing an article in your paper which states that Mr. Ireland raised this season, seven Ruta Bagas which weigh in the aggregate 98 lbs., the largest 16 lbs., 8 oz., and the smallest 10 lbs., allow me to say I believe I have beaten him this year. I selected 7 Ruta Bagas, and after carefully cleaning off all the earth and roots, their aggregate weight was 110¾ lbs.; the two largest weighing 18½ each, and the smallest 12 lbs. I sowed the seed the 7th of May: the 24th of June I transplanted them into spots where the worms had taken the onions, taking care to break off the tap root. I also raised some large carrots, one of which weighed 8 lbs. JOHN CAPE. *Sherbrooke, C. E.*

FARMING IN CHESTER CO., PA.—We may reasonably infer from the facts stated in the following extract of a letter from Willistown, Chester Co., Pa., that notwithstanding the long period the soil there, has been cultivated, it yet possesses virtue enough, when properly managed, to produce remunerating crops. Our correspondent says:—The crops of wheat, corn and oats, were heavy in this county (Chester) generally, but hay was not a good crop, and is selling in Philadelphia now at from $1.25 to $1.50 per 100 lbs., according to quality, though some very inferior sells for much less. Potatoes were also a good crop.

The average crop of corn per acre in this township is, I think, about 60 bushels, oats 45, and wheat near 30 bushels. On many farms the average is much above these figures. My farm contains 102 acres, which is near an average size for farms this near Philadelphia (15 miles.) I had 6¼ acres of wheat, which averaged 29 1-10 bu. per acre—3 acres, in one lot, of corn produced 269 bushels—11 other acres of corn averaged 50 bushels. D. E.

A FIELD FOR EMIGRATION.—A correspondent, recently removed to the West, has thought proper to communicate to us his reasons for choosing a location in *Scotland Co., Missouri*, instead of in Iowa, as he appears to have intended. He states that he wished to go no farther west of the Mississippi, than necessary to obtain a certain amount of land for a limited sum of money. He found such a difference in prices, that he would be obliged to go three times the distance in Iowa, that he would in Missouri to secure a like location at the same cost. His purpose being to raise stock, he considered the slight difference of climate another circumstance in his favor. Timber was to be had at much lower rates. "The reason why this is not settled by southern emigrants," he adds, "holds good for the future. Northerners have also avoided it, and the section of country thus neglected, comprising two tiers of counties, and from forty to sixty miles wide, is unsurpassed for natural advantages by tracts adjoining, now much more generally filling up. It has been partially settled for about twenty years, and is now taking a new start. Any quantity of land yet to enter, a little west of this. Old farms to be purchased at fair rates all around."

Work for Winter.

There are many of the operations of the farm, which can be carried on in winter, quite as advantageously, when there is good sleighing, as when there is good wheeling; and those farmers who are accustomed to "*take Time by the hair*," as Kossuth said; who *drive* their work, not suffering their work to drive them, will have the sleigh in order, and calculations made for the first sleighing.

Now is the time to have drain tile hauled, so that they will be on hand in the spring, when the traveling is bad; and when the wagon, alone, would be about a load for a team. Tile are heavy things; and if one is obliged to haul them any distance, unless the traveling is good, the operation will be somewhat expensive.

I am obliged to haul my tile twenty-four miles. My calculations for ditching were made in the fall; and as soon as the sleighing became good, all other business was suspended, and the team started for tile, when they were able to haul from ten to twelve hundred two inch tile at one load. Yesterday I hauled the last load. To haul the same amount on wheels, would have cost me more than double the time, and three times the amount of the wear of the team. On the next spring, when the ditch is ready for tile, instead of being obliged to go twenty-four miles, after four or five hundred—which would be a heavy load—they will all be at hand.

Farmers A. B. and C. have told me, as they have seen my loads of tile, "I ought to get a few thousand; but have not sold my grain, as yet; and am moneyless; and I have concluded to have some bass-wood or elm sawed into plank for ditching, instead of tile."

My reply is, my grain is not sold; and I was obliged to hire the money to purchase my tile. I intend to haul some bass-wood and maple logs, and sell the lumber that is made from them, and pay for my tile; and save myself the great displeasure and needless expense of repairing drains which will be stopped in a few years, when filled with wood.

Now is the time to haul grain to market, when the distance is considerable; and have it left in store, until the market prices suit, if one is not satisfied with the prices when grain is delivered.

Now is the time, when the sleighing is good, if one lives at a distance from mill, to have all the grain ground, and brought home, that the teams and stock will need, until grass comes. Now, a team will haul forty or fifty bushels, at one load, with ease; and it will occupy no more of a farmer's time to carry fifty bushels at one load, than it would to take six bushels.

I have noticed, scores of times, that some farmers always go to mill, when the traveling is the most impassable, of every other season of the year. When the mud is about as deep as it can be, they will start for mill, with a few bushels; and when the traveling is good, they will go directly by the mill, with no load.

Yesterday my team hauled fifty bushels to mill. To day they take a log to the saw mill, and bring home the grist—losing no time in waiting for the grist to be ground

Now is the time—if one has any trees to remove—to clear away the snow and leaves; and cut a trench about them, with a spade; and in one cold night, a ball of earth will freeze sufficiently thick to enable one to remove a tree of good size, with safety. I have removed evergreens, in this way, twenty eight feet in height, and six inches in diameter, with more than one ton of earth about the roots, in a solid ball, with no apparent injury to the trees.

Now is the time to read—write—and *think*, and lay plans for the coming season; and to get all the operations of the farm under way, so that when seed time comes, the attention and energies may all be directed

to that object. *Drive* all operations of the farm; and never suffer ourselves to be driven by them, is an eligible motto; and those who are actuated by this motto, usually succeed the best.

Now is the time to perform a hundred or more little jobs, which may as well be done now, as to wait until warm and pleasant weather, when they must all be done at one time; and sometimes, at a great and needless expense for the want of a little forethought and calculation. S. EDWARDS TODD. *Lake Ridge, Tompkins Co., N. Y.*

Management of Cattle.

Trite and worn-out subjects, are irksome to read, but there are so many who neglect to practice what they *do* read—so many new beginners in farming, and so many who do not read what is first placed before them, that it is often useful to repeat suggestions that have been made since the day that domestic animals were first used and subjected to the will of man.

The breeding and management of cattle are not only important processes in our domestic economy, but they are almost necessaries of life in civilized society. This is peculiarly the case in relation to cows; for her offspring, her milk, her butter, and her flesh, are all objects of profit; and even her hide, bones, and offal, are matters of consequence. This is so deeply impressed upon all northern farmers, that it often urges inconsiderate but ambitious owners to attempt out-stripping what they think the slow operations of nature, to injure their stock by putting their heifers prematurely to breed, thus destroying the stamina necessary to a strong constitution, entailing upon them a feeble and almost worthless issue—exhausting the powers of life, and often occasioning many and various disorders.

Akin to this injurious and unprofitable practice, is that of keeping too large a stock. The first effect of this is pinching them in their food; the second, stinting them in their growth. They are unhealthy, and cost more to fatten them afterwards; they do not arrive so early at maturity, and they grow unruly and mischievous through hunger, leaping over and breakfences. Instead of being kept on the farm where they would enrich the soil by their manure, and be objects of beauty as well as utility, they have to obtain a stinted and precarious subsistence by the road-side, though objects of persecution by every ferocious dog that is near them, and still more so of savage boys and idle men, as well as the cause of ill-will to a neighborhood; of injury to those who are not their owners, and a nuisance to all. We say nothing of the danger they are to railroads, the increased amount of taxes that such a large number bring upon the farmers, and the saving that a less number would effect. It is useless to add to this, how much larger, sleeker, and handsomer your oxen would be—how much more milk, butter, cheese and veal, your cows would give you—how much better and higher price your beef would bring, and how much less labor, care and expense it would be to keep your animals. It is no small advantage, when butchers and drovers are around, to know exactly where to find them, instead of having them roving over the country where if they are not lost entirely, they cost as much as they are worth to run after and find them. Instead of having your steers bring eighty dollars per yoke at two years and a half old, they bring seventy at three and a half—instead of your cows bringing a calf worth five dollars when she is two years old, she brings one worth two dollars fifty cents when she is three years old, and instead of your cows making 150 lbs. of butter and 100 lbs. of pork in a season each, they make 75 lbs. of butter, and fifty of pork, and are unfit to be turned off for beef until taken up and dried off six months, and fed to their value in hay and corn. If a farmer's object is to make as much dung as possible, he ought to know that the dung of a small stock is equal to that of a large one, if it consumes the same quantity of fodder; and if he objects to pasturing his young stock, that his farm is not large enough, he ought to learn to put less in meadow, and more in pasture, and sell stock in the fall (when generally in demand,) if it cannot be wintered. A few acres of ruta baga, or corn sown for fodder, will however, remedy this complaint; and if this is not sufficient, let him shelter his stock in winter, and keep his provender from under their feet, and there can be no doubt that two-thirds, if not one half, of his meadow land will be enough for him to mow. The injuries that cattle receive from each other, when they are fed and lodged together in a yard, ought alone to be a sufficient reason for tying them up in the barn and stable; but add to this the exposure to cold, wet, storms, the trampling of hay into the dung—the comfort of a dry, warm bed, the preventing the strong from stealing the food of the weak, and of the fodder being staled on when eating or when ruminating, make a combination of circumstances that ought to reach the understanding of every reasonable man.

I lately watched a number of calves that were being wintered, and among which the owner had placed a yearling heifer, who of course was master of all the rest. She would start out in the morning to water, after eating what hay she wanted, and walk along a well trod path, through snow that was often a foot in depth; after satisfying her thirst, she would stand in the path, chewing her cud, for more than half the day, waiting for her owner to furnish the next supply of hay; during all this time the more feeble and helpless calves had to wait for the water, (for which they were suffering,) or make their way through an unbroken waste of snow, up to their bellies, and sometimes almost over their backs. It is useless to describe how much injury they sustained by this injustice. Their appearance in the spring fully indicated what they had suffered; and every observing farmer must in all probability have noticed that calves will die, rather than struggle for their rights under such circumstances. How much more sense of justice, honesty, and uprightness, the farmer, who witnesses such things exhibits, than the heifer herself, I leave to be estimated by him when he makes up his accounts at the end of the year.

To a man of correct or cultivated feeling, any such exhibit will be unnecessary; for the instincts of the brutal or unfeeling, the following calculation may be useful:

Value of a fat, sleek, healthy heifer coming to maturity, and in calf at 2 years, say,	$25.00
Cost of rising her—milk first summer,	$3.00
Hay and ruta bagas, first winter,	5.00
Pasture, second summer,	3.00
Hay and ruta bagas, second winter,	6.00
Cost of cow and calf in the spring,	$17.00
Profit,	$ 8.00
Value of a common heifer coming in at three years old, say,	$22.00
Cost the first summer same as before,	$3.00
First winter on Hay alone,	5.00
Pasture, second summer,	3.00
Hay, second winter,	6.00
Pasture, third summer,	4.00
Hay, third winter,	7.00
	$28.00
Loss, in three years,	$ 6.00

Add to this, that you may from the use of the ruta baga, have the same manure in two years that you get from hay alone in three years—that in every six years you may raise one more animal, (25,) besides turning your money to profit once more, and then you have the profit and loss on both sides. HOLKHAM. *Friendsville, Susq. Co., Penn., 11th Mo.*, 1855.

Bed Linen should be well aired before it is used. Keep your sheets folded in pairs on a shelf: closets are better than drawers or chests for linen; it will not be so likely to gather damp.

Grass, Corn and Oats.

MESSRS. EDITORS—In a communication a few years since, to an agricultural journal, or to the Patent Office, I have forgotten which, I expressed an opinion that, for the profitable cultivation and growth of these three crops, no soil in this country could surpass the alluvion bottom lands upon the Connecticut river. A continuous experience with the cultivation of these crops upon this soil, has fully convinced me of the correctness of this opinion. The vaunted west may boast of her fertility—her oak openings, her broad prairies, her inexhaustible bottoms; but we have comparatively, a broken narrow belt interspersed upon the banks of this beautiful river, "The Rhine of America," which will bear off the palm for the production of the staple crops, which stand at the head of this article. We have no extensive lime-stone formation to give us wheat in abundance, nor does our climate admit of the growth of cotton, rice or sugar, (exeept what we extract from the maple;) yet by the steady rotation of such crops as are congenial to our soil and climate, we are enabled to make reciprocal exchanges through the medium of trade and commerce, with our neighbors of the sunny south and the fertile west, so as to render us fair and honorable competitors for what constitutes a nation's strength, greatness, wealth—*the profits of agriculture.*

The drouth of the three summers previous to the last, so materially affected the grass roots of the old mowing lands, and killed out so much of the new stocking, that the last summer, though wet, was hardly sufficient to resuscitate the grass crop; and in common with all the country around us, we have not had a heavy crop of hay since 1851; though our bottom lands have yielded from one to two tons to the acre in these years; and with a return of a good grass season like 1850 and 1851, we shall again realize from two to four tons to the acre. The corn crop of the past season has not been so good as usual here, on account of the backward spring and wet summer. The oat crop was never better. Wheat, rye and barley, though but little sown, were passable crops.

My principle object in this brief article, Messrs. Editors, is, to give you a statement of a crop of corn and oats grown upon my little farm the past season, with the expenses and profits pertaining thereto; though the former crop was not so large by one fourth as I have frequently obtained with the same labor and expense, yet the price being one fourth more, it makes an equally good bargain.

From 13 acres, was harvested in Oct. last, 1600 bushels in the ear, of sound corn, and 24 bushels of soft corn. Though but little of it has yet been shelled, it is fair to count it at 800 bushels, exclusive of the soft, which cannot be shelled. I find by counting the cost, seed, labor, ashes and plaster, (though no charge for manure, except the hauling and spreading, nor should there be any as it was all made from the farm,) to be $28.10 per acre,—whole cost, $365.30.

Value of corn, 800 bushels, delivered at Railroad station 3 miles at $1.12½,	$900.00
" " soft, 24 bushels at 25 c.,	3.00
" 28 cart loads of pumpkins at 75 c. per load,	21.00
" stalks for winter feed of stock at	
" 3.00 per acre,	39.00
	$963.00
Expense, (including delivery of the corn at depot,).	365.30
Profits,	$597.70

within a fraction of 45.98 per acre, for taxes on, and use of land.

From 15½ acres of oats, was threshed by horse-power, in Nov. last,

1006 bushels, delivered at R. R. Station as above, at 50 cts. per bushel,	$503.00
15½ tons straw, worth at barn $6.00 per ton,	93.00
	$596.00
Whole cost of production, with delivery at Depot, $14.07 per acre,	218.09
Profits,	$377.91

or 24.38 per acre. The land on which these crops were grown, is valued at $100 per acre, which is about the price they command when offered for sale. It will be seen that these crops pay an enormous interest on the investment; but all crops are not as profitable; and then again we must have barns to house our crops, and a house to live in, a wood lot and pasture lands, the taxes must be paid on the whole, and when we come to bring all down to an average with the cost of keeping buildings and fences in repair, it deducts very materially from the profits of some of the leading and best crops. Yet, a man who knows how to make large and profitable crops without impoverishing the soil, and has a taste for these things, with good judgment, prudence and economy, will certainly find farming upon a good soil, profitable. But as you say, friend Tucker, more depends upon the *man*, than any thing else. Farming will no more take care of itself than other business. A close care and supervision is requisite, or the profits will not be found.

In the figures above, it may be thought that the value put upon the corn fodder is too low, and that of the oat straw too high; but I will explain. Corn fodder, in good condition, is worth $6.00 per acre for winter feed, either for cattle or sheep; but the heavy fall rains so washed and damaged it the past season, it is not worth over half price, and I have valued it accordingly. The oat straw I have contracted to a straw-paper maker, taken at the barn at $6.00 per ton, and have weighed enough to know that it will turn out full one ton to the acre. It is true that all the straw and grain cannot be sold; a part must be kept for home consumption, but it is no more than fair to count it all at the market value in getting at the profit or loss account.

And now, Messrs. Editors, one word as to the profits of Vermont farming in general, or what it might be made to be. The soil of this little state can be made to support 1,000,000 of inhabitants as well as it now does 300,000; and in view of all the advantages we possess, a ready market, healthful climate, pure water, good roads, schools and Colleges, it is surprising to me that so many of our young people catch the emigrating fever. If they would but take a rational and sensible view of things as they are, they would see that good upland farms can be bought here as cheap as any where at the west. A farm of one to three hundred acres, in many localities in Vermont, with good buildings, and stone fences, surrounded with permanent roads and bridges, churches, school houses, &c., can be bought at a price that, after counting the cost of all these improvements and advantages to the farmer, will hardly leave the soil at $1,25 per acre. A farm at this price at the west, must be taxed for all these things before it has them, and the proprietor must struggle for the want of them for a while at least, and happy will he be if his health is not prostrated or his life become extinct, before he gets ready to enjoy them. But "the march of empire is westward," and we restless mortals must fall into the current, and be wafted, for weal or for woe, to a haven we know not where. J. W. COLBURNE. *Springfield, Vt., Jan. 7th*, 1856.

ADVERTISING PRICES.—A western correspondent says—"I like the plan adopted by Dr. H. WENDELL of your city, of giving the prices of stock advertised for sale, and should be glad to see it adopted by all advertisers of stock or farm implements."

Notes for the Month.

☞ In Mailing this second number of The Cultivator for 1856, we desire to call the attention of all its readers to the vast amount of the most valuable matter, which we are enabled to compress within its limits. We hazard little in saying that, *in a single month*, this exceeds in respect to mere quantity, all the Agricultural and Horticultural contents of most of our cotemporaries, *whether weekly or monthly*, for two months. In respect to the ability of the sources from which they are obtained, we believe them at least unsurpassed—we think ourselves also warranted in adding *unequalled*, by any other publications devoted to Rural subjects.

All this is furnished for Fifty Cents a Year! Are there not more who are willing to undertake the comparatively slight exertion necessary to put it in the hands of Ten, Twenty, Thirty of their neighbors? We offer such clubs as these, in addition to the Cultivator, the Illustrated Annual Register for 1856—a work of which we are daily receiving the highest enconiums, and which has been universally pronounced worth far more than its retail, or single subscription price of 25 cents.

The following offer is made: To all members of Clubs, who have already received the Register, we will furnish the Cultivator and Register for fifty cents, to each additional members of their Clubs—thus constituting each individual in a Club, an agent to aid in its enlargement. It is not too late to procure very large additions, and we trust many who have never before made the endeavor, will be led by the facts above stated, to do at least *something* to increase the number of their fellow readers. You—whose eye is now lingering on this sentence, with the thought that you might perhaps secure one, or two, or ten names to share with you the advantages of possessing a reliable Journal—please carry out the thought in action, and you and your neighborhood, as well as we, shall be the gainers for it.

To those single subscribers—there are not a few of them—who are alone, or nearly so, at their respective Post Offices, we will send the number requisite to complete a club of Ten, say nine, or eight, or seven copies, as the case may be, of the Cultivator and Register, for Fifty Cents each, together with a copy of The Register to each one who has already paid 50 cents for The Cultivator only. We hope that they will not limit themselves to Ten or Twenty, because these happen to be Club numbers. A Club of *Eighty-eight*, received by the last mail before we write, from a single post office in this state, where we had but *Twelve* subscribers last year, will show how many there often are in one neighborhood, who would gladly take a paper, if its friends would but give it the requisite introduction to their notice.

For ourselves, we may say, that we are constantly made more and more deeply indebted to our friends for their generous efforts; and that, while we endeavor to manifest our appreciation of them, by some more or less material manifestations, we sincerely regret our inability, at the present low terms at which we supply our clubs, to reward their efforts in procuring them as we could wish. They, and all who take an interest in the great cause of Agricultural improvement deserve well of their country.

New-York State Ag. Society—Annual meeting at the Capitol in this city, Feb. 13th.

New-York State Poultry Society—Annual exhibition in this city, commencing on Tuesday, Feb. 12th.

New Rooms of the State Ag. Society.—The new "State Geological Hall," on State-Street, has been so far completed as to admit of the State Ag. Society's taking possession of the rooms allotted to them. They consist of an office and library room on the first floor of the east wing, and a lecture room and two galleries for their museum, 40 by 68 feet, in the rear building. They are as fine rooms as could be desired, and admirably adapted for the purposes to which they are devoted. For a view and more particular description of the building, see Co. Gent., vol. VI, p. 145. The Executive Committee held their first meeting at the new rooms, on the 10th inst., at which time the necessary arrangements were made for the annual meeting of the Society. Among the recent additions to the Museum of the Society, is a valuable collection of the products of California agriculture, received from Mr. J. Q. A. Warren, including samples of different kinds of wheat, barley, oats, broom corn, &c., on stalks of surprising length, for which the thanks of the board were tendered. We trust the time is not distant, when the beautiful rooms so liberally furnished by the State, will be filled by such a collection of the products and skill of American labor and genius, as will attract to the Museum of the New-York State Ag. Society, the attention of the farming community, not only of our own State, but of the whole Union.

To Advertisers.—We need only to refer to the number and standing of our Advertising patrons, to show that the advantages of the Country Gentleman and The Cultivator as Advertising mediums are pretty thoroughly understood. Going into entirely different circles of readers, it is believed that their combined circulation affords a means of reaching the better class of farmers through the whole country, excelled by no other publications, *at equally moderate terms*, of their own or any other class. Our prices will for the present continue as heretofore:—$1 per square of 12 lines, or 100 words, for each insertion in The Cultivator, and $1 per square for the first insertion, and fifty cents for each succeeding one in The Country Gentleman. Or, $1.50 per square for each insertion of the same Advertisement in both. As these terms admit of no deduction, Advertisers will please calculate the cost before ordering the insertion of their favors.

A Market for Straw.—As long ago as Nov. 17th last, we received a letter, which was accidentally laid aside, from a correspondent at *Rock City Mills, Saratoga Co.*, written on "paper made at one of Buchanan and Kilmer's mills in that place, entirely of *straw*." It is of very fair quality, firm in texture, sufficiently smooth in surface, and, while *buff* paper is in fashion, would be "hard to beat" in respect to color. Our correspondent adds: Scarcely any branch of manufacturing has directly added so much to the farmer's income; thousands of dollars being now annually paid them in this county, for what a few years since was not worth, and is not now worth for any other purpose, 10 per cent. of the amount they get. Two classes of

farmers, however, do not avail themselves rightly of its benefits. One will not sell their straw, arguing that their land would be impoverished; the others sell all, and put the money in their pocket. Now the true way for both these classes, is to *sell*, and then religiously employ all the proceeds in the purchase of, or labor in procuring cheaper material for manuring or enriching their farms. Thus one load of straw, which could not make over a load of manure worth 50 cents, would buy nearly twice its weight of plaster, or would pay a man's wages, perhaps, half a month, in getting out muck, or gathering leaves, or carting turf from the roadside, or collecting ashes or hauling lime, as these various means are more or less in their reach. Let this real economy be practiced, and give the manufacturer a chance to get rich, the farmer a chance to get *richer*, and the farm to get *richest* of all. H. VAN OSTRAND.

FREE PAPERS.—Editors are very frequently called upon to furnish reading rooms, societies, &c., with their papers, without charge; and the tax thus imposed on those who are good-natured enough to comply with these requests, is frequently very burthensome. We have suffered ourselves to be quite too frequently taxed in this way. But we have before us an application of this sort, which surprises us, coming as it does from one of our wealthiest agricultural associations. They have established a "Farmer's Reading Room," in one of our principal cities, and give notice that it is "provided with the principal agricultural journals in this country and Great Britain," and now ask us to "contribute a copy of our publication free of charge." We cannot do it, gentlemen. We heartily wish you success in all your efforts for promoting agriculture, but so long as most of your members are better able to pay for their papers than we are to provide them gratis, we must decline your invitation. If you have the honor of sustaining your establishment, we see no reason why you should not pay its expenses.

SALE OF FINE HORSES.—Mr. JOHN REBER of Lancaster, Ohio, who sometime since bought the famous horse "Monarch," of Col. L. G. MORRIS, Mount Fordham, has recently purchased of the same gentleman, the well-known mare, "Fashion," two of her fillies, old Lady Canton and her stud colt Bronx, and several other fine mares, all in foal to Monarch—thus transferring to Ohio, the whole of Col. M.'s breeding stud, who we understand, was induced to part with them in order to make room for all his other stock on his Herdsdale Farm, to which place they will be transferred in the spring, and where he will confine his attention to the breeding of Short-horn and Devon Cattle, South Down Sheep, and Berkshire and Essex Swine. His Catalogue for this year, will be issued in April or May.

AMERICAN HERD BOOK, VOL. III.—The approbation with which the 2d vol. of the American Herd Book has been received by the breeders of Short-Horns in this country, and the solicitations of many breeders to have a third volume in preparation, has induced Mr. ALLEN, the editor, to give notice of his intention to prepare a third volume, of the same size and style as the second, whenever the materials necessary for it shall accumulate. Those interested, can obtain a circular, giving all necessary information on the subject, by addressing LEWIS F. ALLEN, Esq., Black Rock, N. Y.

FRAUD IN PERUVIAN GUANO.—A subscriber in Pennsylvania writes us that a friend of his last fall bought a ton of Peruvian guano, No. 1, in Philadelphia, with which he was much pleased on account of its "strong smell." He spread it on his barn-floor to pick out and pulverize the lumps; and to his astonishment, in the course of a few days, the "strong smell" entirely disappeared. He then had a sample of it analysed, and it proved not to be worth more than $13 or $14 per ton. The writer says—"I found the bags were branded 'No. 1 Peruvian Government Guano.' This undoubtedly was a counterfeit—a base fraud. I have since found that the Guano was shipped to Philadelphia from New-York, and I have no doubt it was the famous Chilian guano under a new name." If the facts are as stated, the purchaser should give the name of the person of whom he bought it, to the public. The demand has become so extensive for guano and artificial manures, that great temptation is offered to dishonesty, and purchasers will find it for their interest to procure their supplies from persons of established integrity.

UNITED STATES AG. SOCIETY.—The Annual Meeting of this society was held at Washington City, on the 9th, 10th and 11th of this month. We have as yet seen but brief notices of its doings. It appears by the report of the Treasurer, that the total receipts from all sources, at the Boston Exhibition, amounted to $37,172.54—Premiums and expenses paid, $35,350,-42—leaving a balance of $1,822.12. The present funds of the Society consist of a claim on Selden, Withers & Co., Washington City, for monies deposited in their bank by a former treasurer, of $2,149,13, and cash now in treasury, $1,868.02. It was resolved to hold the next exhibition of the Society at Philadelphia in October next. We annex a list of the officers elected:

President—Marshall P. Wilder, of Massachusetts.

Vice Presidents—J. D. Lang, Maine; H. F. French, New-Hampshire; S. Brown, Massachusetts; J. J. Cooke, Rhode Island; John A. Rockwell, Connecticut; Dr. J. P. Beekman, New-York; George Vail, New-Jersey; Isaac Newton, Pennsylvania; J. W. Thompson, Delaware; Anthony Kimmel, Maryland; G. W. P. Custis, Virginia; H. K. Burgwyn, North Carolina; R. W. F. Alston, South Carolina; R. Peters, Georgia; C. C. Clay, jr., Alabama; M. W. Phillips, Mississippi; John Perkins, jr., Louisiana; Gen. Worthington, Ohio; M. L. Underwood, Kentucky; John Bell, Tennessee; Joseph A. Wright, Indiana; J. A. Kennicott, Illinois; T. Allen, Allen, Missouri; Roswell Babee, Arkansas; J. C. Holmes, Michigan; D. J. Yulee, Florida; Chas. Durkee. Wisconsin; P. Ord, California; W. W. Corcoran, District of Columbia; Jose Manuel Gallegos, New-Mexico; H. H. Sibley, Minesota; P. W. Gillet, Oregon; C. Lancaster, Washington Territory; E. Hunter, Utah; Bird R. Chapman, Nebraska.

Executive Committee—John A. King, New-York; A. L. Elwyn, Pennsylvania; D. Jay Browne, District of Columbia; John Jones, Delaware; W. H. H. Taylor, Ohio; Richard P. Waters, Massachusetts.

Secretary—W. S. King, Boston, Massachusetts.

Treasurer—B. B. French, District of Columbia.

LEWIS CO. AG. SOCIETY.—The Annual Meeting was held Dec. 20, when the following officers were elected for 1856: LEWIS STEPHENS, President; John D. Lord, Jared Stiles, Jr., Norman Gowdy, Ellis Cook, Edmund Baldwin, David A. Steward, Vice Presidents; C. G. Riggs, Rec. Secretary; Leonard C. Davenport, Corr. Secretary; M. M. Smith, Treasurer; Joseph A. Willard, Edmund Baldwin, William Phelps, Rutson Rea, Abram I. Mereness, Executive Committee. A resolution was adopted, locating the County Fairs alternately at Lowville and Turin. The Society also passed a resolution in favor of holding the next State Fair at Watertown, and then locating it permanently either at Utica, Rome, Syracuse or Rochester. Premiums were awarded to Norman Gowdy, Lowville, for best acre peas, 50 bushels, $2,00; to Wm. C. Miller, for best acre corn, 87½ bushels, $3,00.

ORANGE WATERMELON.—We have frequent applications for seeds of this melon, which we are unable to supply. If any of our friends have a surplus, which they wish to distribute pro bono publico, we shall be glad to aid them in its distribution, if they will forward it to us. A half-ounce package can be sent by mail for three cents.

WHEAT TURNING TO CHESS.—Quite a number of the correspondents of the *Michigan Farmer*, have been considerably exercised upon this subject during the past year; and it would seem from an article in the last number, from Mr. WM. ANDERSON of Ann Arbor, that the believers in transmutation have been unable to find any one among the disbelievers who would offer a reward of $25, "to any one that can and will produce wheat from chess." Mr. A. asks:

"If the anti-chess gentlemen know that wheat will not turn to chess, where is the risk of offering small premiums to test and settle this dispute? But they appear unwilling to prove their faith by their works."

We do not wish to interfere in this controversy; but this question having been thoroughly discussed in our paper, commencing more than twenty years since, and continued for years, we gave it a very careful examination, and came to the conclusion, as did a multitude of farmers who read that discussion, that wheat could not be made to turn to chess. In that discussion, one writer, and a very worthy man, stated that he could produce chess from wheat without difficulty. In answer to this our worthy and venerable friend DAVID THOMAS of Cayuga, immediately offered the writer alluded to a reward of $50, if he would do what he believed himself able to do so easily—produce chess from wheat. Col. CHAPIN of Ontario, also offered a reward of $50 to any one who would perform this prodigy. It is sufficient to say that these rewards were never claimed, although great efforts were made to produce the feat necessary to obtain them. Following these examples, and in answer to the call of Mr. ANDERSON, we offer a reward of $50, to Mr. A. or to any one else, who will produce to us ocular demonstration that he has grown chess from wheat. If the believers in transmutation will set themselves to work to *prove* it, by endeavoring to effect the transmutation, they will ere long change their views, or at least convince themselves that it cannot be proved.

ALBANY CO. AG. SOCIETY.—The annual meeting of this society was held at the City Hall in this city on the 2d day of January—Hon. A. OSBORNE, President, in the chair, and G. I. VAN ALEN, Sec'y. After the reading of the report of the Treasurer, from which it appeared that there was a balance of something over $1,400 in the treasury, the Society was re-organized under the act of April 13, 1855, and the following officers chosen for 1856:

President—LEVI SHAW, of Rensselaerville.
Vice-President—RICHARD KIMMEY, Bethlehem.
Secretary—CHARLES R. WOOLEY, Albany.
Treasurer—LEONARD G. TEN EYCK, Bethlehem.
Directors—Henry Spawn, Guilderland, and John Burhans, Coeymans, for one year; Daniel D. T. More, Watervliet, and Horace E. Robbins, Westerlo, for two years; Robert Thompson, Albany, and Henry Crewell, New Scotland, for three years.

OHIO STATE BOARD OF AGRICULTURE.—The annual meeting of this Board was held at Columbus in December. WILLIAM H. LADD of Richmond, was chosen President of the new Board for 1856—GEO. SPRAGUE Cor. Sec'y—J. K. Greene, Rec. Sec'y, and Lucian Butler, Treasurer.

QUESTION OF LAW.—M. R. F. says "that, as the law is interpreted here, (Herkimer county,) the owner of land, through which a stream runs, has no right to use the water for irrigation or for domestic purposes, because there is some trifling machinery on the stream below." If such is the law, it would seem that it ought to be so amended that each man might take as much water as required for his own use, from his own land, without being liable to any one for damage. Our correspondent says there are numerous cases in his vicinity where farmers are thus deprived of the use of water, to their serious injury, and he thinks the subject should be brought before the legislature. He would do well to interest the member from his district in the subject.

FINE APPLES.—Our friends of the CHURCH FAMILY of Shakers at Niskayuna, will please accept our thanks for the basket of beautiful apples sent us last week, among which were superior samples of the Baldwin, Spitzenburgh, R. I. Greening, and a very large and fair apple, name unknown, the scions of which were received from the vicinity of Cincinnati. Their apple crop the past season, amounted to about 600 barrels.

BLACK RASPBERRIES.—The common black raspberry is cultivated to a considerable extent around this city. Judge OSBORN, of Watervliet, informs us that he sold $176 worth this year, from 2000 stools. The stools are in rows 6 feet apart, and 2 feet in the rows. He cultivates them as he does corn. When the new wood is about 18 inches high, he cuts off a portion from the top so as to make it branch out. The fruit in this way is near the ground, and is of better quality, besides being easier to pick. With this mode of cultivation, the Judge says, an acre will yield 6000 lbs. of raspberries. We observed that the land was well-mulched with corn stalks.

PLAN OF FARM.—If our correspondent, DAVID DICKSON, of Winfield, Indiana, will send us a plan of his farm, with the amount and position of woodland, hill and lowland, the height of the upland in different places, variation in soil in different places, &c., and also state whether the barn could be placed on either side of the house, or, in other words, if he will furnish a map of the farm as it is by nature, and by present improvement, we shall endeavor to furnish him a plan for laying out his fields, and furnish a suitable rotation of the same.

ADVERTISING AGENCIES.—Those who wish to advertise in our journals are cautioned against sending their advertisements through any "*Advertising Agency*," as they will not thereby secure their insertion. These agencies are becoming decided nuisances; and we have long since declined to insert any thing from them unless accompanied by the amount necessary to pay the charges. The best way in all cases is for the person who wishes to advertise, to send his advertisement directly to the papers in which he wishes it published. It will not only cost him less, but he will secure its prompt insertion.

AN ILLINOIS FARM.—We see it stated that Col. JOHN WENTWORTH, ex-M. C., and present editor and publisher of the *Chicago Democrat*, has a 2,500 acre-farm, about 12 miles from Chicago, for which he has been purchasing, for a year or two past, the best thoroughbred domestic animals of all kinds, to be procured in the country—including Short-Horn and Devon Cattle—South Down and Merino Sheep—Berkshire and Suffolk Swine, together, we believe, with a good stock of the fashionable varieties of Poultry. Among his later purchases were several fine Short-Horns and Devons from Messrs. Becar and Morris, and the prize yearling short-horn heifer at the recent Illinois State Fair, for which it is said he paid $500. The demand for improved stock is rapidly increasing in Illinois and the west, and we doubt not that Mr. Wentworth, in endeavoring to supply it on an extensive scale, will find himself abundantly rewarded for his liberal expenditures.

LEEDS AND GRENVILLE POMOLOGICAL SOCIETY.—At a meeting held at Lyn, Canada West, on the 6th of October last, an association was organized under the above title. Wm. Beattie, Esq. was appointed President, R. Coleman, Jr. Vice President, and David Nicol, Secretary. At a subsequent meeting, held on the 2d Wednesday of December, a constitution and bye-laws were reported and adopted, so that the society is now in good working condition. At the October

meeting there was a handsome exhibition of pears, apples and other fruits—among them some very superior seedling apples.

N. Y. State Poultry Society.

☞ The Third Annual Fair of the N. Y. State Poultry Society will be held at Van Vechten Hall, Albany, on the 12th, 13th and 14th of Feb., 1856, at the same time that the N. Y. State Ag. Society has its Annual Meeting. The premiums offered amount to $450. Premium Lists, and any information desired, may be obtained by application to

E. E. PLATT, Sec'y.,
Jan. 24—w3tm1t Ag. Store, 369 Broadway, Albany.

New Chinese or Japan Potato,

DIOSCOREA *Batatas vel Japanica*. Orders are received, and will be filled in rotation by the subscribers, for this new and valuable esculent. Price $3 per dozen, or $20 per 100 tubers. Printed description with direction for its culture will be furnished to purchasers.

J. M. THORBURN & Co.,
Seedsman, &c.,
Feb. 1—m2t 15 John Street, New-York.

Tree, Shrub, Hedge, and Evergreen Seeds.

A COLLECTION of about 100 varieties.

Norway Spruce,	$1.50 per lb.
Scotch Fir,	1.50 "
Evergreen Cypress,	1.50 "
Black Austrian Pine,	3.00 "
Weymouth Pine,	3.00 "
Chinese Arbor Vitæ,	3.00 "

Magnolia Macrophylla, Osage Orange, Cedar of Lebanon, &c. &c.

J. M. THORBURN & CO.
Seedsmen, &c.,
Feb. 1—m2t. 15 John Street, New-York.

TO NURSERIES.

WM. R. PRINCE & CO., Flushing, N. Y., will forward their new Wholesale Catalogue for Nurseries, to applicants. Also the following Catalogues: No. 1. Fruit and Ornamental Trees, Shrubs, and Plants; and No. 2. Roses, Dahlias, Bulbous and Herbaceous Flowering Plants, &c., both 40th edition. No. 3. Extra large Fruit Trees, Evergreens, and other Ornamental Trees and Shrubs. No. 5. Garden, Agricultural, Flower, Fruit, and Ornamental Tree and Shrub Seeds. No. 6. Descriptive Catalogue of the Finest Strawberries. No. 9. Supplement Catalogue of Bulbous Flowers, New Dahlias, Pæonies, Chrysanthemums, Phlox, Carnations, and other Rare Flowering Plants. No. 11. Treatise on Culture of Chinese Potato, or DIOSCOREA BATATAS, on Licorice, Tanner's Sumach, &c.

N. B. 100,000 Osier Cuttings, of 8 finest kinds, at very low rates, and a few hundred Chinese Potato, or Dioscorea batatas, still remaining. Jan. 24—w1tm1t

CRANBERRY CULTURE,

THE subscriber has issued a circular in relation to CRANBERRY CULTURE, and will forward it to all applications without charge. Also will forward PLANTS, in a fresh state, by Adams & Co.'s Express, to any part of the United States, or by any other conveyance requested. Price $7 per 1000. When clubs are formed for a considerable quantity, a liberal discount made. Should any of the plants die out with fair usage, other plants will be sent to fill all vacant places without charge. Address

SULLIVAN BATES,
Jan. 24—w&m3m Bellingham, Norfolk Co., Mass.

CRANBERRY PLANTS.

UPLAND AND LOW LAND VARIETIES.—Bell or Egg-shaped is the best variety to cultivate on damp, wet, or poor swampy land, where nothing else will grow, often producing from 200 to 300 bushels per acre.

Upland Cranberry—are more prolific, but smaller and superior fruit. They grow on poor, cold, unproductive land and hillsides in Canada. Plants of this variety will be for sale in May. Also,

NEW-ROCHELLE BLACKBERRY PLANTS.

Circulars relating to culture, Soil, Price, &c., will be forwarded to applicants by enclosing a postage stamp.

For sale by F. TROWBRIDGE,
Dealer in Trees, Plants, &c.,
Jan. 24—w&m1t New-Haven, Ct.

FLOWER SEEDS.

THORBURN'S Descriptive Catalogue of *Flower Seeds* for 1856, embracing every desirable variety in cultivation, (1000 sorts.) with directions for their culture, will be sent to applicants enclosing a stamp.

Also, *Wholesale* Price List of the above by the quantity, for Dealers.

Also, Catalogue of Tree, Shrub, Hedge, and Evergreen Seeds.

J. M. THORBURN & CO.,
Seedsmen, Nurserymen, &c.,
Feb. 1—m2t 15 John Street, New-York.

CHOICE POULTRY

FOR SALE. Gray, White, Black and Buff Shanghais, and Black Spanish, all warranted pure blood—and EGGS from the following varieties: Spangled, Brahmas, Gray, White, Black, Buff, and Black Spanish, and Silver Poland, at $3 00 per dozen. All orders promptly attended to. Fowls $5 each—$10 per pair.

Addre-s GEORGE ANDERSON,
Jan. 31—w2tm1t* No. 56 Schuyler-St., Albany, N. Y.

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding he Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

"It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)	48·00
Phosphate of Lime,	33·90
Carbonate of Lime,	7·60
Sulphate of Lime,	6·40
Potash and Soda,	4·10
	100·00

Respectfully your obedient Servant,
CHARLES T. JACKSON,
Assayer to the State of Massachusetts,"
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York. S. B. HALLIDAY, Agt.

22 West Water St., Providence, R. I.
Jan. 24—w6t—m6m.

ALBANY AGRICULTURAL WORKS,

ON HAMILTON, LIBERTY AND UNION STREETS.

WAREHOUSE, SEED STORE, AND SALES ROOMS
NO. 52 STATE STREET,
ALBANY, N. Y.

EMERY BROTHERS,

SOLE PROPRIETORS AND MANUFACTURERS OF

Emery's Patent Railroad Horse Powers and Overshot Threshing Machines and Separators.

ALSO MANUFACTURERS OF AND WHOLESALE DEALERS IN

AGRICULTURAL MACHINES AND IMPLEMENTS,

OF THE LATEST AND MOST IMPROVED KINDS EXTANT.

Dealers in Grain, Field, Grass, Garden and Flower Seeds, and Fertilizers.

THE Horse Powers, together with the great variety of LABOR-SAVING MACHINES, to be propelled thereby, being the leading articles manufactured by the proprietors, the attention of the public is especially called to them. Full DESCRIPTIVE ILLUSTRATED CATALOGUES containing directions, prices and terms of sale, warranty and payment, sent by mail, gratis, to all post-paid applications.

Upwards of Twelve Hundred sets of the above celebrated machines, have been made and sold in this city alone during the last twelve months, and without supplying the demand. The public may rest assured the reputation heretofore earned for their manufactures, shall be fully sustained, by using none but the best material and workmanship; and by a strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed.

As large numbers of Powers and other machines are being offered in various sections of the country, resembling those of the above manufacturers in almost every particular, it becomes necessary to caution the public against the deception, and to enable their own to be distinguished from all others, they would say, the words "*Emery's Patent*," are upon all the small wheels, "*Emery*," upon the links of the chain, and the name "*Emery*," in some manner, and all in raised letters, is cast upon some or all the iron parts of all their machines, beside the wood work being also stencilled, in a conspicuous manner, with the names of the proprietors and their place of business.

Warranty, Capacity, Economy, &c.

The Two Horse Power and Thresher, as represented by circulars, is capable, with three or four men, of threshing from 175 to 225 bushels of wheat or rye, and the ONE HORSE POWER from 75 to 125 bushs. of wheat or rye; or both kinds of powers, &c., are capable of threshing double that amount of oats, bartey or buckwheat per day, of ordinary fair yield.

These Power Threshers, &c., are warranted to be of the best materials and workmanship, and to operate as represented by this circular, to the satisfaction of the purchasers, together with a full right of using them in any territory of the United States, subject to be returned within three months and home transportation and full purchase money refunded if not found acceptable to the purchasers. Jan. 3—w1tm1t

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Chicago Agricultural Warehouse and Seed Store.

Warehouse and Sale Room 45 Franklin Street, between John and Randolph Streets.

THE subscriber, formerly connected with the "*Albany Agricultural Works, Albany, N. Y.*," has opened a Depot in Chicago, where may be found at all times a complete assortment of

FARM MACHINERY AND IMPLEMENTS,

of most approved kinds—also a full stock of

GARDEN AND FIELD SEEDS.

Full catalogues furnished gratis on application.

Dec. 13—w4tm2t HENRY D. EMERY.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

SHORT HORNS.

THE subscribers offer for sale a few Bull and Heifer Calves, the get of "Astoria," "Lord Vane Tempest 2d," "3rd Duke of Cambridge," imported, and imported "Earl Vane."

Catalogues, with pedigrees of the animals, will be furnished upon application to J. C. JACKSON, Esq., 111 Water street, New-York, or at the farm of the subscribers at Elizabeth, New-Jersey. B. & C. S. HAINES.

Dec. 1—m3t

EMERY'S

Patent Portable Horse Powers,

THRESHERS, Separators, Saw Mills, Corn Shellers, Feed Cutters, &c., for sale at 45 Franklin Street, Chicago, Ill. HENRY D. EMERY.

Dec. 13—w4tm2t

Contents of this Number.

BUSINESS NOTICES.

PREMIUMS TO AGENTS.

As an inducement to Agents to exert themselves to form Clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a journal in their hands, we offer the following list of Premiums to those who send us the largest amount of cash subscriptions to our journals for the year 1856, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS
8. For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.
11. For the TEN next largest Amounts, Each a Bound Set of the Six Quarto Volumes of the Cultivator, from 1838—1843 inclusive.
12. For the TEN next largest Amounts, Each a Volume of the Transactions N. Y. State Ag. Society for 1854.

Agents who compete for the above prizes must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of THE CULTIVATOR, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the COUNTRY GENTLEMAN.

Terms of the Country Gentleman.

One copy, one year,.....$2.00
Three copies, " 5.00
Five copies, " 8.00
Ten copies, " 15.00

☞ Payment must be made in advance—or fifty cents per year will in all cases be added to the above terms.

Terms of the Cultivator.

FOR A SINGLE COPY,..... FIFTY CENTS.
FOR TWENTY COPIES, with REGISTER for 1856 to each,..... $10.00

☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

☞ The money in all cases to accompany the order, and subscriptions invariably to commence with the January number.

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable RURAL LIBRARY than can be procured in any other shape for ten times the money.

PRICE—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by*

Subscribers in British Provinces.

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club-terms to them for the latter will be—

20 copies and the REGISTER to each,..... 11.60
And for the COUNTRY GENTLEMAN,
3 copies..... $5.75
10 copies,..... 17.50

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:
"*John Smith*,....*Lenox*,....*Berkshire Co.*,....*Mass.*"